THE SPATIAL ORGANISATION AND SOCIO-CULTURAL BASIS OF TRADITIONAL COURTYARD HOUSES

Simon Shieh-Haw CHANG

Ph.D.

University of Edinburgh

1986

To my mother,

my wife Yi-san

and

in memory of my father

ACKNOWLEDGEMENTS

I would like to thank my supervisors Professor C.B. Wilson and Dr. P.G. Raman for their invaluable advice and critical guidance during the various stages of my research.

I also wish to thank my mother Mrs. S.C. Chang for her financial and moral support; my parents-in-law Mr. and Mrs C.K. Yen for their patience and help in enabling me to finish the thesis, and finally my wife Yi-san for the typing of the manuscript.

DECLARATION

This thesis was composed by myself and is my own original work.

Simon Shieh-Haw CHANG

October 28, 1986

ABSTRACT

The thesis presents a critical analysis of the physical, social and cultural determinants of the traditional Chinese courtyard house. A number of factors which contributed to the stability of the form and spatial arrangement of the courtyard house in traditional China are identified.

Early chapters examine the physical and broad social influences upon the form of the courtyard house and explain the different forms of spatial organisation. The discussion then centres on the importance of the Chinese family system and how it was reflected in the spatial arrangement within the house form.

The symbol system related to Chinese houses is then considered, paying particular attention to its development from prehistoric China to the Han Dynasty and thereafter, including the concept of Ch'i and the cosmic framework of the Chinese people, which laid the basis for Yang Chai Theory. Ideal residential environments according to the two main Schools of Yang Chai Theory are then described. An example of how the various physical and socio-cultural factors are embodied in an actual courtyard house from the traditional period, taking into account the various elements of Yang Chai Theory, is then illustrated and analysed.

The courtyard house reached its demise with the transformation of Chinese societies from agricultural to industrial, as social values and family structure were adjusted to suit the new life-styles. Nevertheless, Yang Chai Theory remains strongly embedded in Chinese culture. The thesis concludes with a discussion of how its components are taken into consideration even nowadays in the forming of residential environments.

Table of Contents

INTRODUCTION

The aim of this thesis is to introduce and explain the main principles followed by the Chinese in their attempt to properly locate their houses, and thereby themselves, in both the social and natural world during the traditional period of Chinese history (1). Traditional Chinese houses performed several functions: to shelter people and their possessions from outside forces, to stress social identity and indicate the status of the inhabitants within the social and family hierarchy, and last but not least, to enable man to harmonise with nature so that evil influences may be warded off and the family may prosper.

Since man-made houses are more than mere material objects or structures, it is necessary to take a wider view and examine the socio-cultural factors as well as physical factors in order to understand the houses of the Chinese people, as it is the interplay of all these components which best explain the spatial organisation and the house forms.

Research on Chinese architecture has mainly been limited to the classification, listing and description of various building types and their features. Little attempt has been made to link these forms to the social structure, the world view, the beliefs and desires of the people. This thesis is therefore concerned not only with examining the different forms of the courtyard house according to physical factors, but also the site and spatial organisation and building form based on the socio-cultural factors.

"Chinese societies tend to be very tradition oriented" (2). This

---

1) The traditional period extended from the Han Dynasty (206 B.C. - 220 A.D.) until the end of the Ching Dynasty (1636 - 1911 A.D.)
2) Chu Chai, "Chinese Humanism; A Study of Chinese Mentality and Temperament" in Social Research, Vol 26, 1959, p 31

is one of the main reasons why the Chinese architectural tradition underwent little change throughout the centuries. However, houses of commoners were the type of architecture mostly likely to possess local characteristics within the architectural tradition; in an age of underdeveloped transportation and communication systems, the special characteristics of houses in the different regions strongly reflected the natural and geographical conditions as well as certain social circumstances (1).

As with the architecture of some other cultures, traditional Chinese buildings can be classified into two categories - those belonging to the grand design tradition and those belonging to the folk tradition. While the former served to either impress the populace with the power of the patron, or to show off the ingenuity of the designer and the cultivated taste of the patron, the latter represented a direct and unselfconscious translation of a culture into physical form including needs, values and world view, beliefs and desires of the people (2).

Chinese houses of commoners belong to the folk tradition and form the theme of my study. The reason for my choice lays in the fact that research on buildings belonging to the grand tradition is already more than sufficient, if not repetitious, while houses belonging the folk tradition of Chinese architecture have merely been briefly introduced, if they are at all mentioned, in most studies of Chinese architecture.

---

1) Liu Tun-Chen, 中國住宅概說 (General Account of the Chinese House), (Peking : Building and Public Works Publishing House, 1957; reprint ed., Taipei : Ming Wen, 1981), p 1
2) See Amos Rapoport, House Form and Culture, (London : Prentice Hall, 1969) p 2

Some main characteristics of Chinese commoners' houses must first be explained:

1. Neither designers nor architects were involved in the constructing process of common houses. The layout of traditional Chinese dwellings was decided conjointly by three groups of people:

   a. Inhabitants: according to whose professions, social status, and the size and membership of their family, the unique uses of the space in the houses and building forms were determined and arranged.

   b. Feng-Shui finders : People in charge of judging the auspiciousness or inauspiciousness of a certain site or dwelling; i.e. theirs is a profession which proposes precautions based on the location and orientation of the house. The practice of Feng Shui aims to enable the inhabitants to live in an environment which is in harmony with nature, and based on this, people can lead peaceful and secure lives and look forward to wealth and a glorious future. "Pu Chü" (卜 居) is the technical term in China for the search of a proper residence (1).

   c. Craftsmen: the work of the craftsmen included decisions on the size of the structure, planning the site of the house compound, deciding the proper size of each room. They developed a body of knowledge on the techniques of construction, which comprised structural standards, oral rules and taboos in construction, personal techniques and experience, which were employed in the building of the dwelling (2).

---

1) 成王使周公卜居 (The Chou king Chen asks the Duke of Chou to help him find an auspicious residence), see 書經 (Book of History), Chapter 周本記 "Chou Pen Chi"

2) See Yue-Jiann Shyu, 台灣傳統建築聚構設計原則之探討 "The Study of Chinese Traditional Construction Design Principles in Taiwan" in 建築與城鄉研究學報 (Bulletin of Environmental Studies), (Taiwan : National Taiwan Univ.), Vol. 2, No. 1, 1983, pp 71-75

2. Most noticeable in traditional times was the fact that the majority of the population had a knowledge (ranging from vague to clear) of the form and method of construction of their houses (1), with the craftsmen employed in housing construction distinguishing themselves from the common people only in the degree of expertise. Thus many of the craftsmen of the time worked in housing construction only part-time, while farming remained their main occupation (2).

The inhabitant (owner of the house) was very much a participant in the design process and not merely a consultant with a vague conception of his ideal living environment (3).

3. The standard process in house building in traditional Chinese society consisted of a common "ideal model" shared by the inhabitant, Feng Shui finders and craftsmen. The "ideal model" was shaped by the symbol systems of traditional times together with the social and cultural values of the Chinese people. Although it was never actually built, it was to some extent embedded in every house and, according to various factors, only underwent adjustments and modifications to form a new residence.

When a Feng-Shui finder judged the proper site for the house owner, or the craftsman decided on the proper size of the house,

---

1) See Studio of Environmental Planning and Design, National Taiwan University, 板橋林本源園林研究與修復 Study and Restoration of the Lin Family Gardens in Pan-Chiao, Taipei, National Taiwan University, 1981, p 37
2) See Yang Chia-Wen & Sun Huai-Chin, 陝西關中地區農村住宅的傳統形式 ("Traditional Farmhouse Form in Kuanchung, Shensi Province") in 中國建築史論文選輯 (Collected Essays on the History of Chinese Architecture), (Taipei : Ming Wen, 1983), Vol. 2, p 29-30
3) See Studio of Environmental Planning and Design, National Taiwan University, 板橋林本源園林研究與修復 Study and Restoration of the Lin Family Gardens in Pan-Chiao, p 38

the type of building in question, the form or style and even the materials were already known to them. This shared "ideal model" needed only to be modified by various factors, such as the need of the family as decided by their social status, the scale of the house as decided by their financial situation or family structure as well as the ideal relationship between the site and house as determined by the physical environment. The style and characteristics of the house were thus the result of the adjustments and variations brought about by various cultural and local factors which influenced the "ideal model". This "ideal model" was impressed in Chinese minds, thus conscious aesthetic concepts and special stylistic interests could only be applied to the details and decorations of the house, as they had no strong influence on its main features.

The "ideal model", honoured by the Chinese of the traditional ages through collective assent, became an important part of their culture and was handed down through the generations, acting as an authority.

4. The Chinese ideal model of houses reflected not only the world view of the Chinese people in their spatial arrangement, but also their social structure. The hierarchy in the Chinese family could be seen from the layout of the house (1), while the basis of Yang Chai Theory, which set the standards for the proper site and house, lay in the Chinese cosmic framework, which arose from their world view (2).

---

1) This subject is the theme of Part 1, Chapter 2.
2) Both the cosmic framework and Yang Chai Theory are discussed in detail in Part 2.

This thesis is divided into two parts. The first part examines the physical and social factors which influenced the Chinese courtyard house. In Part 1, Chapter 1, I show 34 examples of courtyard houses which contain different forms of spatial organisation, including the basic "three-in-one" and "four-in-one" courtyard house, the lateral and the longitudinal extensions of the courtyard house as well as houses which are a combination of both. The forces which led to the shaping of the different forms and the spatial utilisasation of these houses will be discussed in this chapter.

Part 1, Chapter 2 introduces the importance of the Chinese family system and discusses the social forces which are reflected in the spatial arrangement and house form.

Part 2 is concerned with the symbol system related to Chinese houses. Chapter 1 examines the development of the symbol system based on religious factors from prehistoric China to the period of the formation of states.

Part 2, Chapter 2 introduces the main elements of the philosophy and astrology of the Han Dynasty and thereafter, which formed the concept of Ch'i and the cosmic framework of the Chinese people, laying the basis for Yang Chai Theory.

Part 2, Chapter 3 describes the ideal residential environment according to the two main Schools of Yang Chai Theory, taking into account the forms of mountains and waterways, as well as the orientation of the house to allow the accumulation of lively Ch'i within the house. The other main element of Yang Chai Theory, auspicious measurements and decorations, will also be explained. An example of an actual courtyard house from the traditional period taking into

account all the elements of Yang Chai Theory will be given at the end of this chapter.

As many of the Chinese names and terms used in this thesis have already been translated into English by earlier writers using the Wade system, I have adhered to this system throughout the thesis for the convenience of the reader. Names of places are spelled in the familiar forms of the Postal Authorities (such as Peking and Fukien). Only in cases where a Chinese article or book is accompanied by an English translation of the title using the Phonetic Alphabet for the Chinese Language (Pinyin) has the spelling remained in this form.

PART 1 PHYSICAL AND SOCIAL FACTORS RELATED TO THE CHINESE COURTYARD HOUSE

Chapter 1 Spatial organisation of the different types of courtyard houses

1.1.1. The basic styles of Chinese houses in general

China is a vast country having complex land forms and contrasting climates. From very early times, the land was inhabited by groups of people which gradually developed into several tribes. In order to adapt to the natural environment and the needs of life in various regions, several types of dwelling system were developed (1).

In the course of Chinese history, the tribes became, alone or conjointly, different states, among which there were active political and economical relations as well as an exchange of culture, which led to a continuous amalgamation of the various cultures. In the field of architecture, only four tribes, Han (漢), Meng (滿), Hui (回), Tsang (藏) retained their destinctive building styles. According to the Chinese architectural historian Liu Chih-P'ing, the different styles of the Chinese domestic house can be divided into six groups: 1. cave and excavated dwellings; 2. houses on stilts or pile dwellings; 3. fortress style dwellings; 4. dwellings of the Mongolians; 5. dwellings on water (boat houses) (2); 6. courtyard houses (3).

Courtyard houses form the core of my study. The form of the court

---

1) Liu Tun-Chen (General Account of the Chinese House), p 1
2) For a description of these five forms, see Appendix 1-1.
3) See Liu Chih-P'ing, 中國建築類型及結構 (Types and Structural Forms in Chinese Architecture), (Peking : Building and Public Works Publishing House, 1957), pp 30-31

yard house which appeared already in the West Chou Dynasty (1027 - 770 B.C.) was originally used only as ancestral temples, not residences (1). According to I Li (2), the courtyard house form was borrowed for residences of officials and scholars in the East Chou Dynasty (770-256 B.C.) (see Figure 1-1-1).

From the diagram, we can see that the house was surrounded by a rectangular wall, with a front gate on one side flanked by two side rooms. Beyond the front gate lay the courtyard, followed by the house itself. At the centre of the house was the main hall, with bedrooms on both sides and to its rear. A rear side door can be found on the side wall. Such a courtyard house form was used with little variation until the beginning of the Han Dynasty (3).

Apart from literary records, evidence of courtyard houses from the Han Dynasty can only be found in models of houses made of pottery and drawings on tiles, bricks or stone which were buried with the deceased and found in tombs from the Han Dynasty (4). Regardless whether these houses contained one row of lineal buildings or an L-shaped structure, single or multi-storeyed, what they had in common was a courtyard which was surrounded on the four sides either by the buildings themselves or outer walls (see Figure 1-1-2). Other forms of courtyard houses in the Han Dynasty were U-shaped (also known as "three-in-one") or 日 -shaped, which contained two court

---

1) See Yang Hung-Hsüng, 西周岐邑建築遺址初步考察 (Preliminary survey of architectural remains from the West Chou) in 文物 Wen Wu, 1981, pp 23-26
2) See Li Ju-Kuei, 儀禮釋宮 (The Explanation of I-Li), Sung Dynasty; and Chang Huei-Yen, 儀禮圖 (Diagrams According to I-Li), Ching Dynasty
3) See Liu Tun-Chen, 兩漢住宅雜觀 (Notes on houses of both Han Dynasties) in 中國營造學社彙刊 (Journal of the Society for Research in Chinese Architecture, 1932, Vol. 3, No. 3, p 129
4) See Liu Tun-Chen, 大壯室筆記 (Notes on Ta Chuang Shih) in 中國營造學社彙刊 (Journal of the Society for Research in Chinese Architecture, 1932, Vol. 3, No. 3

Figure 1-1-1 The residences of officials and scholars in the East Chou
(from I Li Tu)

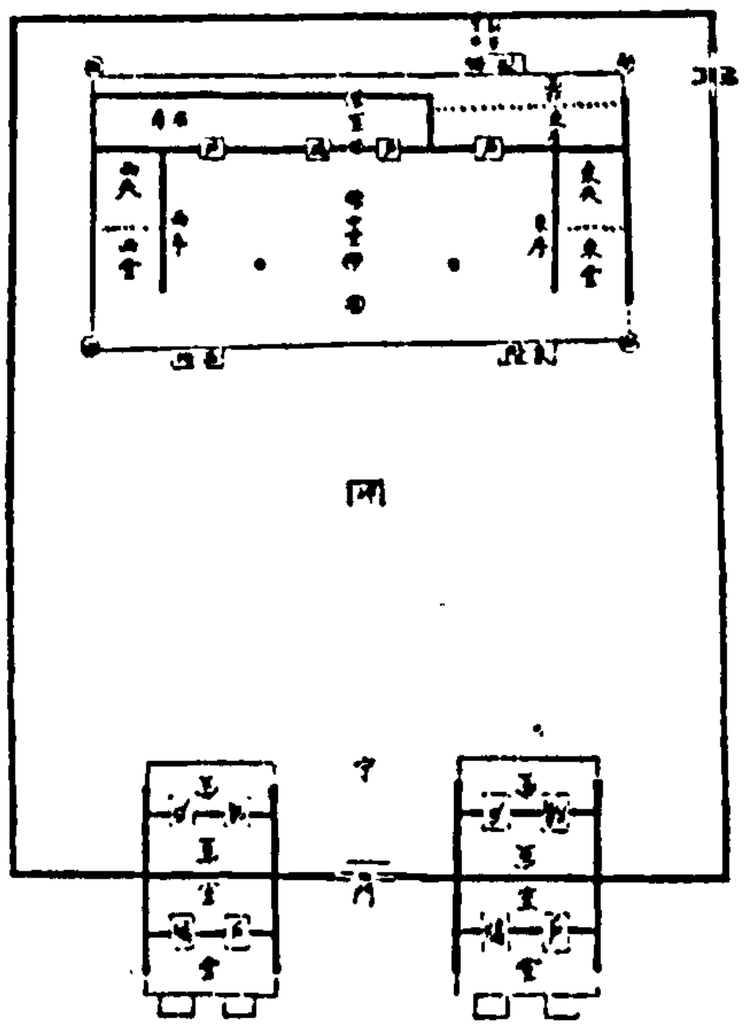
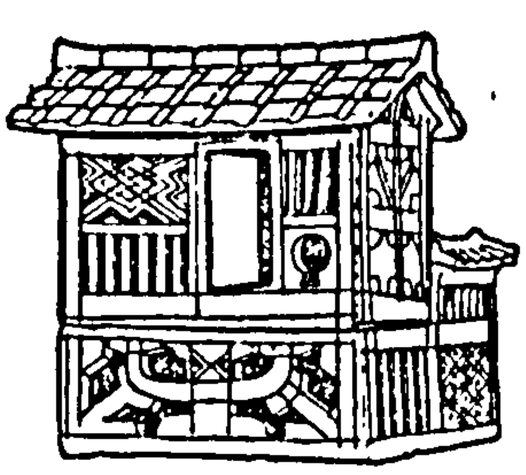
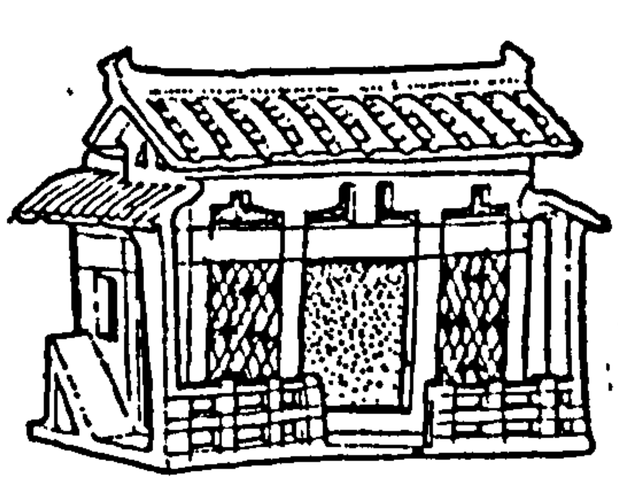


Figure 1-1-2 Pottery models of houses from the Han Dynasty
(from Committee for Cultural Relics in Kuangtung, Wen Wu, 1958)





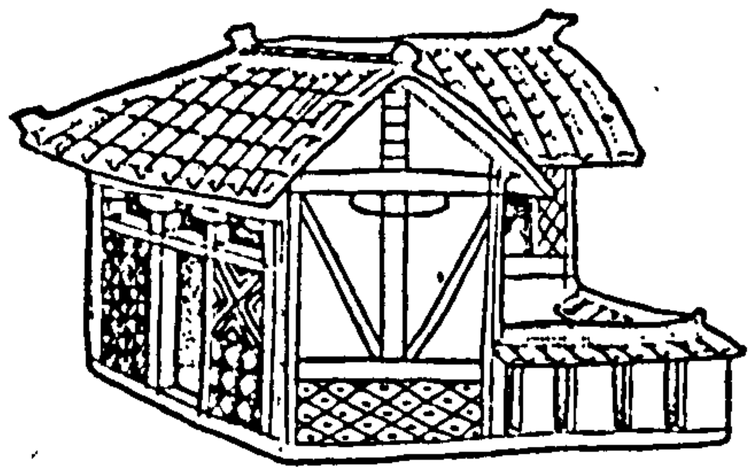


Figure 1-1-3 日 -shaped courtyard house
(from Committee for Cultural Relics in Kuangtung, Wen Wu, 1958)

yards (1). In the 日 -shaped courtyard house, the central structure was multi-storied and was surrounded by low buildings on four sides (see Figure 1-1-3).

Brick reliefs found in Szechuan show courtyard houses which were divided into two sections, one containing the front gate and main hall and was the residential area, while the other was the service area. The residential area contained two courtyards surrounded by corridors or rooms, with the main building lying at the end of the second courtyard. The service area was likewise divided into two courtyards : the front courtyard with the kitchen and well was the smallest in the compound, while the rear courtyard was occupied by a wooden watchtower (Fig 1-1-4) (2).

From the period of the Six Dynasties (ca. A.D. 220-581) through the Sui (A.D. 581-618), Tang (A.D. 618-907) and the Five Dynasties (A.D. 907-960) to the Sung Dynasty (A.D. 960-1279), the main evidence for the courtyard house form is found on cave paintings of Tun Huang (敦煌) (3) and other paintings from the period, in which most houses depicted contained a courtyard which was surrounded on all sides (see Figure 1-1-5). In some town houses of the Tang Dynasty, buildings on opposite sides of the courtyard were connected by corridors, while in rural houses, the courtyard was

---

1) See Committee for Cultural Relics in Kuangchou, 廣州出土漢代陶屋 (Pottery of Houses from the Han Dynasty found in Kuangchou) in 文物 Wen Wu, 1958, p:32-41

2) This type of house most likely belonged to officers, merchants or landowners. See Work Group on Cultural Relics, Bureau of Culture, Honan, 鄭州南關159號漢墓的發掘 (The Discovery of Han Tomb No. 159 in Nankuan Chengchou) in 文物 Wen Wu, 1960, Nos. 8 & 9

3) See Liang Ssu-Cheng, 敦煌壁畫中所見的中國古代建築 (Ancient Chinese Architecture as Seen from the Cave Paintings of Tun Huang) in 梁思成文集 (The Collected Writings of Liang Ssu-Cheng), (Peking, Chinese Architectural Industry Publ., 1980), Vol 1, p 1-37

Figure 1-1-4 Brick reliefs of Han courtyard house found in Szechuan (from Bureau of Culture, Honan province, Wen Wu, 1960)

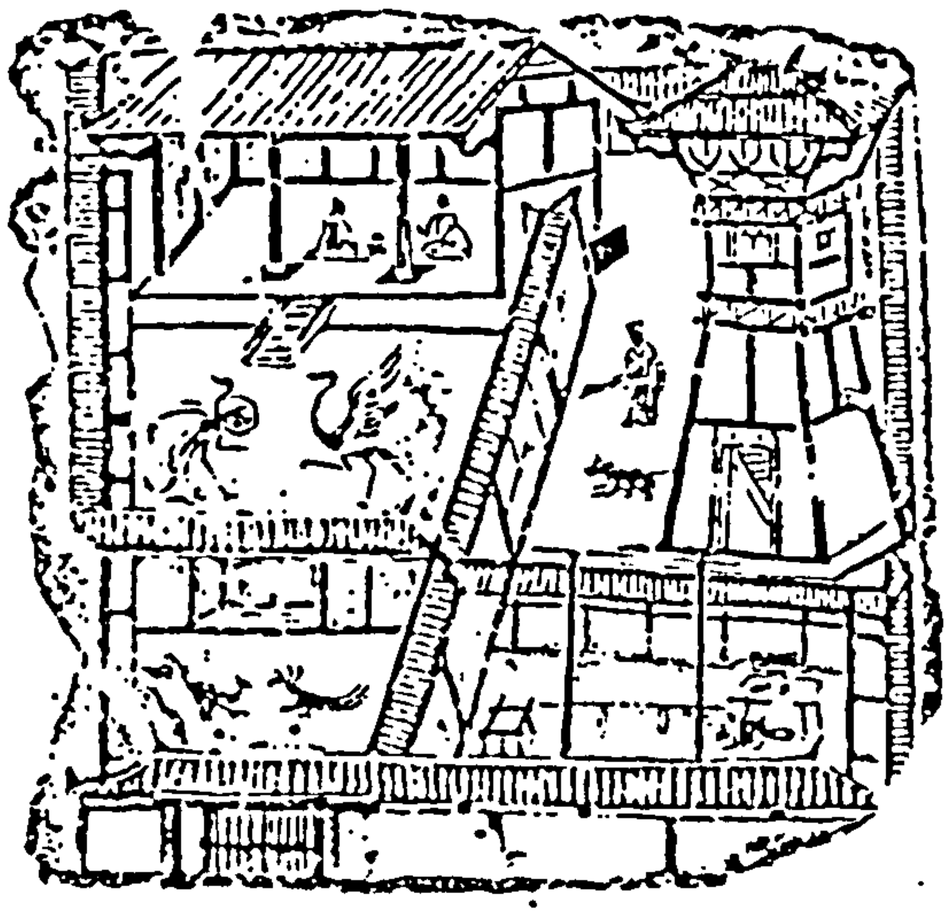
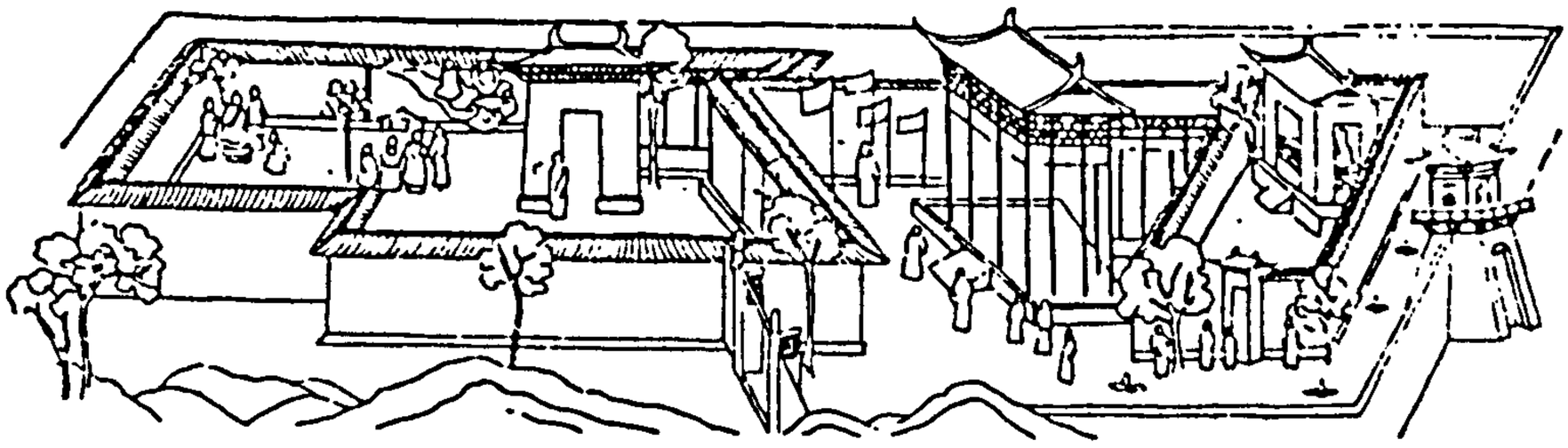
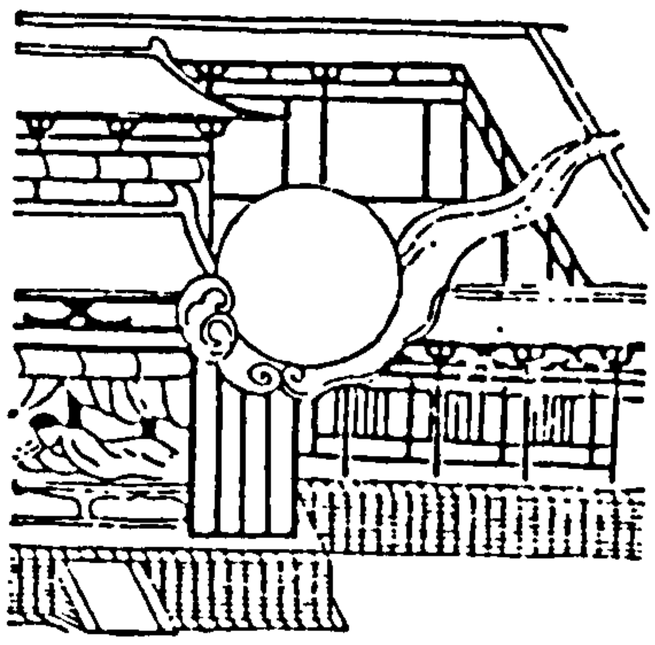
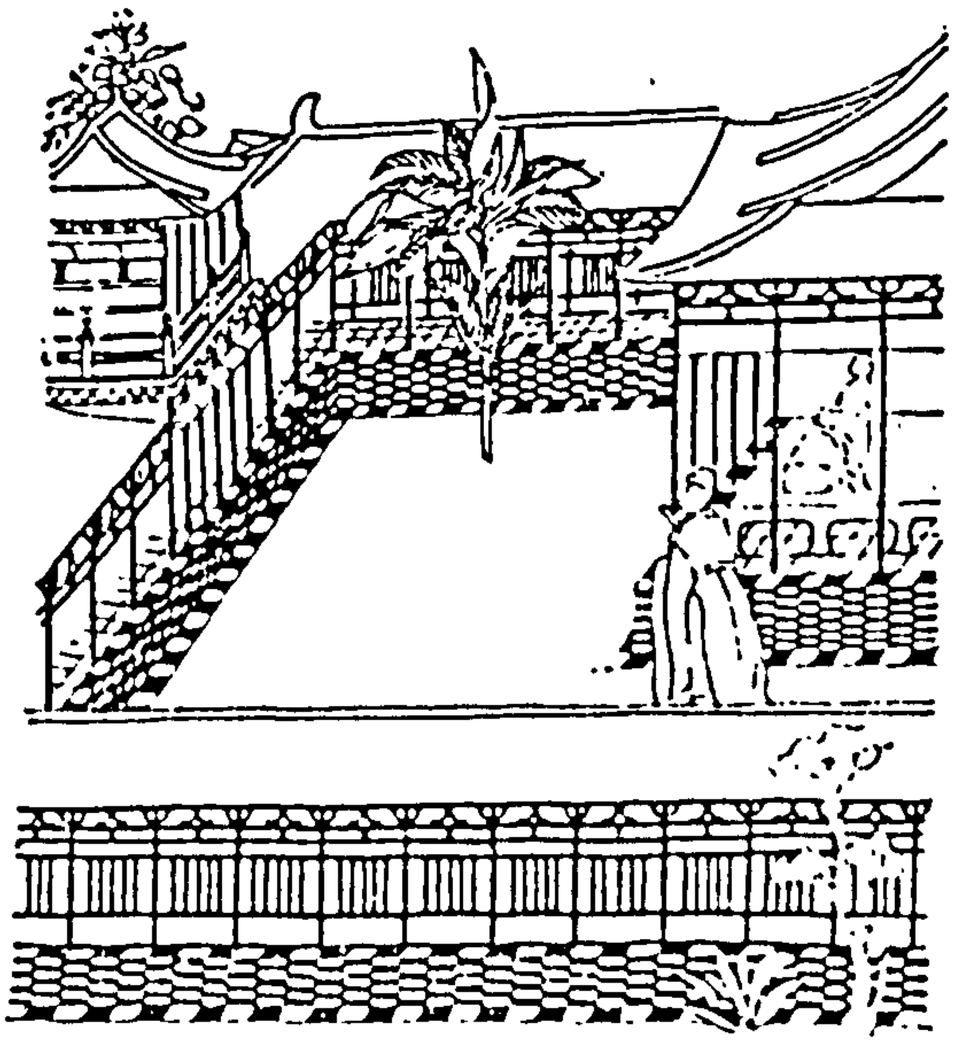


Figure 1-1-5 Courtyard house of Tang Dynasty on cave paintings of Tun Huang

(from Liu Tun-Chen, 1957, p 115)







either surrounded on all four sides by buildings (see Fig. 1-1-6 & 1-1-7) or on three sides by buildings and the fourth a fence. Sung Dynasty houses can most clearly be seen on two large silk scroll paintings, "By the River at the Spring Festival" (清明上河圖) by Chang Tse-Tuan (A.D. 1085-1145) and "Winding Through Thousand Miles of Mountains" (千里江山圖) by Wang Hsi-Meng (Sung Dynasty).

Courtyard houses of various sizes are depicted in the two master-pieces (see Fig. 1-1-8 & 1-1-9). Regardless of the size, most houses contain a main building which is connected to the rear lateral bedrooms by a covered corridor, forming either a 工 - shape or 王 - shape. In the painting "Return of Lady Wen-chi to China" (文姬歸漢圖), the front portion of a large town house can be seen, in which a spirit wall standing directly behind the front gate is clearly visible (see Fig. 1-1-10) (1).

In the Ming (1368-1644) and Ching (1636-1911) Dynasties, the courtyard house had become the most popular and common house style in China. We find great differences in courtyard houses which can be attributed to various geographical and social (hierarchical) factors. The theme of Chapter One is the influence of geographical and climatic factors on the spatial organisation of courtyard houses of different sizes, and the characteristics found to be common to all courtyard houses.

As the courtyard house form became so widespread in China, I shall introduce 34 examples of courtyard houses found in the various parts of China as the basis of my survey. It is my intention to examine responses to the physical and climatic factors in the

---

1) The function of the spirit wall will be explained in Part 2, Chapter 3

Figure 1-1-6 Courtyard house of Sui Dynasty
(from Liu Tun-Chen, 1957, p 116)

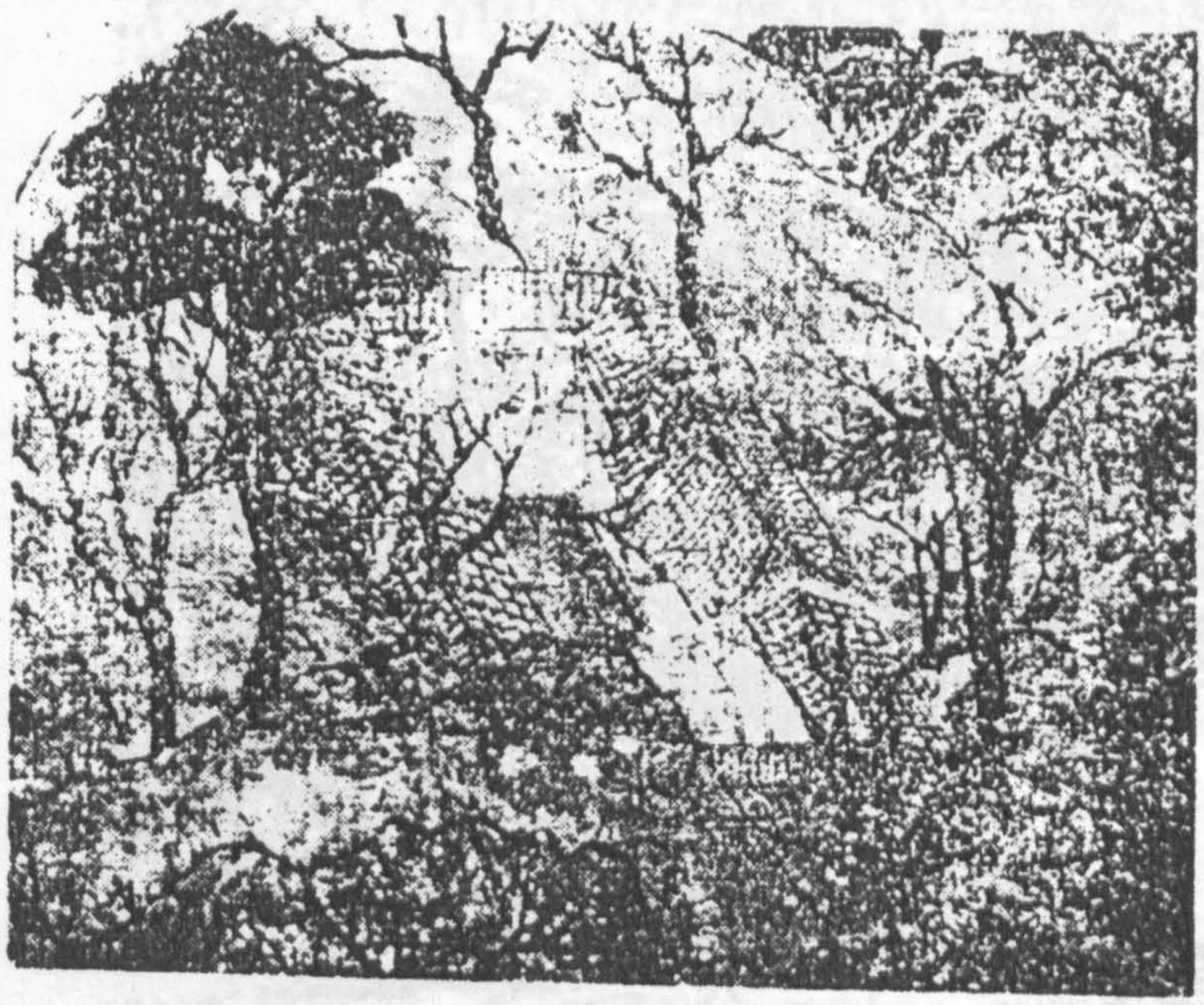


Figure 1-1-7 Rural house of Sui Dynasty
(from Liu Tun-Chen, 1957, p 116)

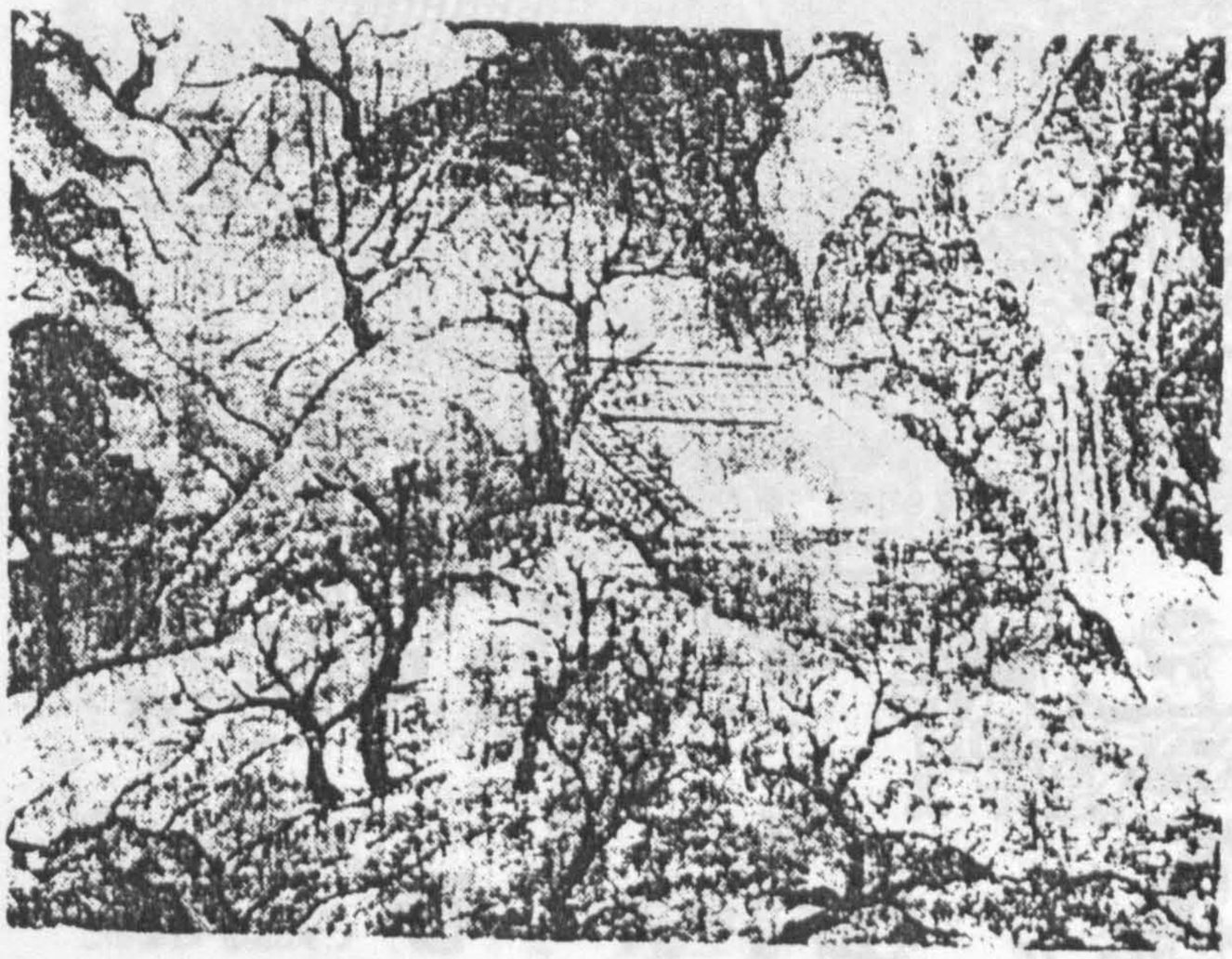


Figure 1-1-8 Rural house and city house of Sung Dynasty in "By the River at the Spring Festival"
(from Liu Tun-Chen, 1957, p 173)

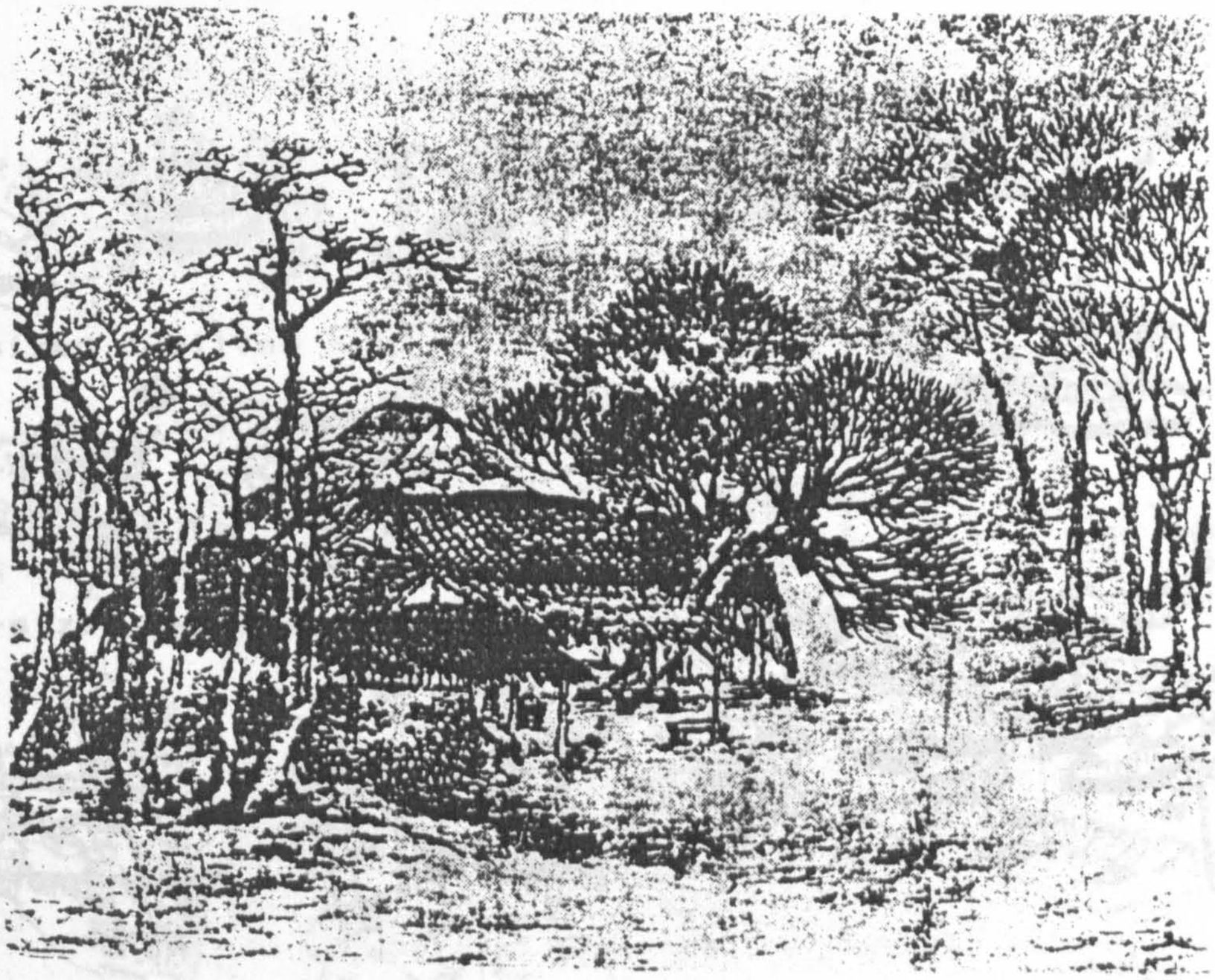
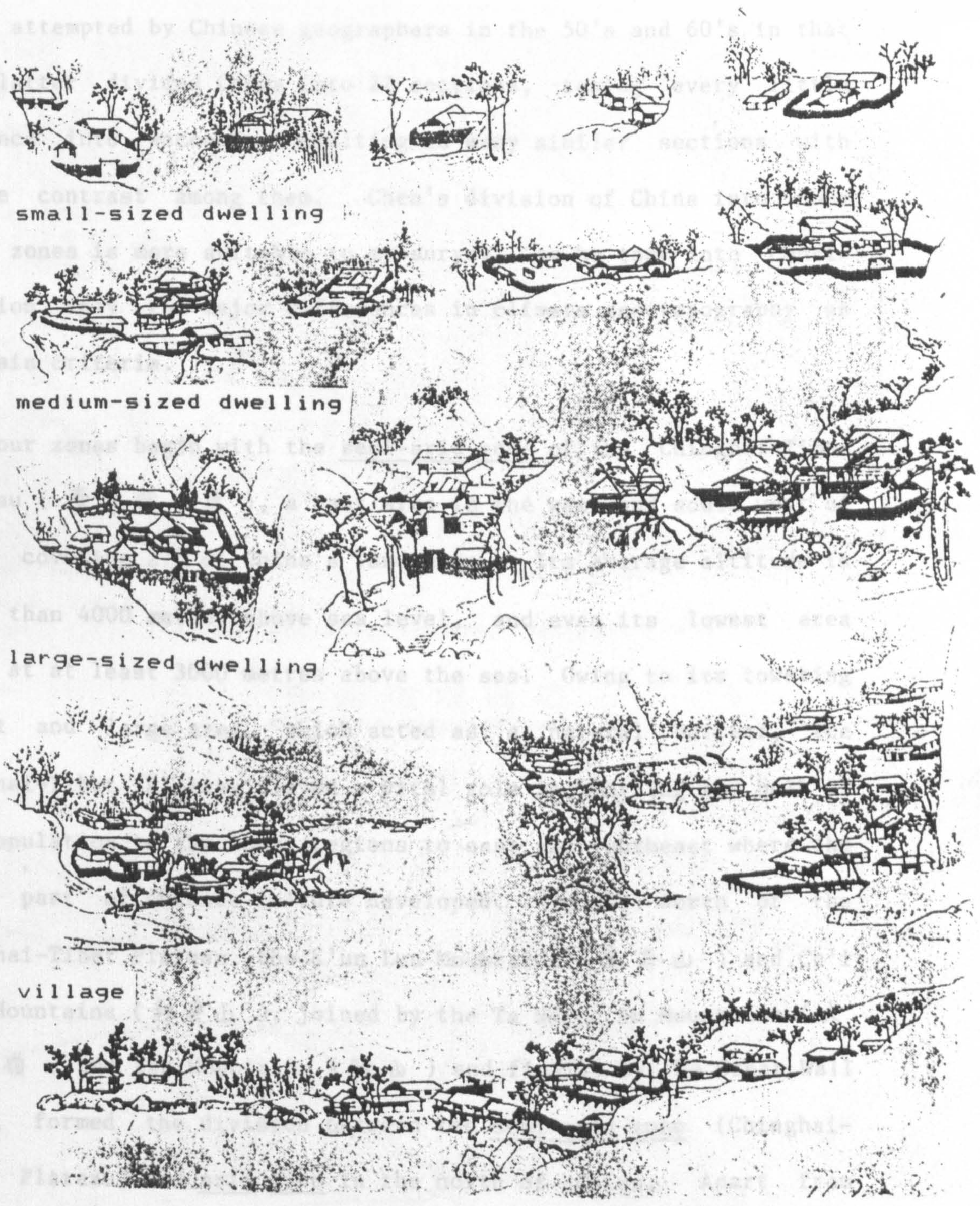


Figure 1-1-9 Different types of courtyard house of Sung Dynasty in "Winding through thousand miles of mountains" (from Liu Tun-Chen, 1957, p 174)



different geographical areas.

I have based my study on the geographical divisions proposed by Chen Cheng-Hsiang (1). Chen 's divisions differs from those formerly attempted by Chinese geographers in the 50's and 60's in that the latter divided China into 22 sections, taking every little variance into account, resulting in many similar sections with little contrast among them. Chen's division of China into four major zones is more suitable to my survey, as he took into consideration only the major differences in climate and topography as his main criteria.

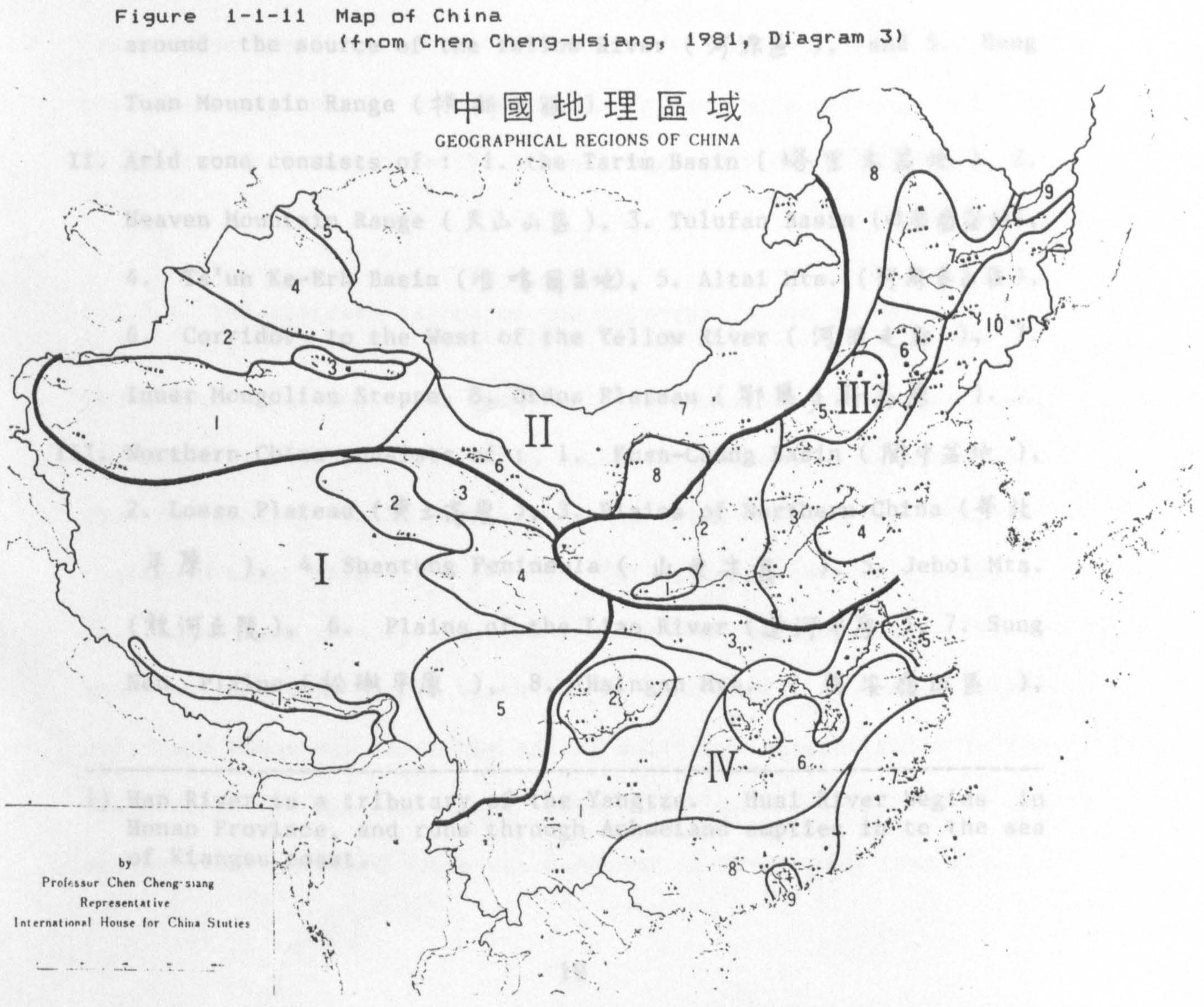
The four zones begin with the semi-arid zone of the Chinghai-Tibet plateau (青康藏高原), a vast area in the west and south west of China covering 27% of China's land mass. Its average altitude is more than 4000 metres above sea level, and even its lowest area lies at at least 3000 metres above the sea. Owing to its towering height and large area, which acted as a natural barrier, the Chinghai-Tibet Plateau played a vital role in limiting the bulk of the population to the lower regions to the east and southeast where the major part of Chinese culture developed. To the north of the Chinghai-Tibet Plateau, the K'un Lun Mountains (崑崙山) and Ch'i Lien Mountains (祁連山), joined by the Ta Hsing An Mountains (大興安嶺) and Yin Mountains (陰山) and finally by the Great Wall of China, formed the division between the semi-arid zone (Chinghai-Tibet Plateau) and arid zone in the north of China. Apart from these two geographical zones, the cradle of China, considered the monsoon area (covering the east and southeast) is further divided in two. (See Fig. 1-1-11.)

---

1) Chen Cheng-Siang, 中國歷史文化地理圖册 A Historical and Cultural Atlas of China, (Tokyo : Hara Shobo, 1981)

Figure 1-1-10 Town house of Sung Dynasty in the painting "Return of Lady Wen-Chi to China"
(from Andrew Boyd, 1962, Plate 55)

Figure 1-1-11 Map of China
(from Chen Cheng-Hsiang, 1981, Diagram 3)



Owing to the favourable climatic and physical conditions for agriculture, the monsoon area possesses 95% of China's arable land and population. This immensely vital area is divided into a northern and southern zone, with a clear boundary running between them. In the Han and Tang Dynasties, geographers considered the Han River (漢水) and Huai River (淮河) (1) as the boundary between the two regions, comparable to the Chin Mountains and Huai River regarded today as the dividing line. This division of the cradle of Chinese culture into Northern and Southern China completes Chen Cheng Hsiang's division of China into four zones. The four zones cover the areas of: (see Fig. 1-1-11)

I. Semi-arid zone (Chinghai-Tibet Plateau) consists of : 1. the Brahmaputra Basin (雅魯藏布江谷地), 2. Chaitamu Basin (柴達木盆地), 3. Chilien Mountains (祁連山區), 4. the region around the source of the Yellow River (河源區), and 5. Heng Tuan Mountain Range (橫斷山脈)

II. Arid zone consists of : 1. the Tarim Basin (塔里木盆地), 2. Heaven Mountain Range (天山山區), 3. Tulufan Basin (吐魯番窪地), 4. Ts'un Ke-Erh Basin (准噶爾盆地), 5. Altai Mts. (阿爾泰山區), 6. Corridor to the West of the Yellow River (河西走廊), 7. Inner Mongolian Steppe, 8. Ordos Plateau (鄂爾多斯高原).

III. Northern China consists of : 1. Kuan-Chung Basin (関中盆地), 2. Loess Plateau (黃土高原), 3. Plains of Northern China (華北平原), 4. Shantung Peninsula (山東半島), 5. Jehol Mts. (熱河丘陵), 6. Plains of the Liao River (遼河平原), 7. Sung Nen Plains (松嫩平原), 8. Hsingan Mts. (興安嶺山區),

---

1) Han River is a tributary of the Yangtze. Huai River begins in Honan Province, and runs through Anhweiand empties in to the sea of Kiangsu coast.

9. Lowland of Three Rivers (三江低地), 10. Chang Pai Shan Mts. (長白山山區)

IV. Southern China consists of : 1. Yünnan Kueichou Plateau (雲貴高原), 2. Szechuan Basin (四川盆地), 3. Mt. Chin (秦嶺山區), 4. Plains of the Lower Yangtze River (長江中下游平原), 5. Yangtze Delta (長江三角洲), 6. Area south of the Yangtze Delta (江南丘陵), 7. Mountain Area along the south-east coast (東南沿海山區), 8. Nanling Mts. and the area to its south (南嶺和嶺南丘陵), 9. Pearl River Delta (珠江三角洲).

In this thesis, only courtyard houses belonging to the northern and southern monsoon areas will be discussed; as in the above division, these two zones will from now on be referred to as Northern and Southern China. Of the examples I have chosen, around 1/3 are from Northern China, while the rest are houses from Southern China. The reason for the large amount from the south lays mainly in the fact that the topography in Southern China is much more varied, leading to greater differences in the spatial organisation of houses.

1.1.2.1 The standard layout of the courtyard house in China

In a basic dwelling, the main building contained three rooms and was known as the "one hall - two rooms" style, which, combined with the surrounding walls and an entrance gate, formed the simplest courtyard house (see Fig. 1-1-12). This type of courtyard house in its layout was usually a walled rectangular compound with a front gate in one wall beyond which lay a courtyard. A medium sized courtyard house was formed by adding buildings perpendicular to the two ends of the main building. Sometimes, the main building of the medium size courtyard house was composed of five rooms (see Fig. 1-

1-13). In a larger courtyard house, the main building contained mostly five to seven rooms; the central room of the main building being the "ancestral hall" or "Bright hall" (明間). The rooms next to it were Tz'u ch'ien (次間) (next room), next to which were Shao ch'ien (稍 間) (end room), while the last room at both ends of main building were named Erh ch'ien (耳間) (ear room), which was always narrower than the other rooms. The main building was usually elevated on a tamped earth foundation, and opposite the main building was the main gate in the Tao tso (倒座) (reversed building). Generally speaking, the courtyard house with the Tao tso was named "four-in-one" courtyard house (四合院) while without the reversed building Tao Tso, it was known as the "three-in-one" courtyard house (三合院) (see Fig. 1-1-14).

Four major components which are usually contained in the these types of courtyard houses are: Shang fang (上房) (main building), Hsiang fang (廂房) (surrounding buildings) or Wei chiang (圍牆) (surrounding wall), Ta men (大門) (front gate) and Chung ting (中庭) (courtyard).

The Shang fang or the main lateral building is the most important element in the courtyard house and contains the ancestral hall at the centre with rooms to its side. The ancestral hall in the Chinese house was multi-functional. It was used for:

1. Ancestral worship during annual festivities.

2. Ceremonies such as weddings, funerals, the naming of a newborn baby and coming of age at 20 (加冠) which were all related to ancestral worship.

3. Family gatherings and sometimes receiving guests.

4. Dining after the previously mentioned large ceremonies.

5. Displaying objects of art (eg. caligraphy or paintings).

The smallest Shang fang consists of an ancestral hall with a bedroom on each side, one of which is the master bedroom (see Houses 1, 2 and 3) (Fig. 1-1-15, 1-1-16 & 1-1-17). A larger Shang fang contains five rooms, with the two outermost rooms being either bedrooms (see House 4) (Fig. 1-1-18), kitchen or storage room (see House 5) (Fig. 1-1-19).

In all the houses mentioned, the two bedrooms flanking the ancestral hall can be entered only from the ancestral hall. Such an arrangement adheres to the Chinese tradition of regarding the ancestral hall and the two bedrooms as one residential unit, also known as Tang wu or hall rooms, in which the room of the ancestral tablets is given greater prominence than rooms of family members. In order to reach the outermost rooms in House 5 (kitchen and storage room) from the ancestral hall or vice versa, one can use the corridor in front of the main building, but in some house such as House 4, it is necessary to traverse the courtyard to reach the outer rooms as the corridor does not extend to the sides. This indicates the diminished importance of the outermost rooms.

In the two houses from Shanghai (House 6, a "three-in-one"; and House 7, a "four-in-one) (see Fig. 1-1-20 & 1-1-21), the ancestral hall is not only flanked by bedrooms on each side; rather, the rooms on each side form a small residential unit, each containing two to three bedrooms, a family room and a kitchen. In House 8, the two units are repeated on the opposite side of the courtyard. According to Liu Tun-Chen, these houses were probably occupied by different families which shared the ancestral hall and may have

belonged to the same joint family (1).

In both the "three-in-one" and "four-in-one" courtyard house, the two buildings on the side of and perpendicular to the main building are known as Hsiang fang or side buildings. The size of the courtyard is decided by the length of the side buildings. The spatial arrangement of the Hsiang fang is sometimes similar to that of the main building, with a "side hall" at the centre flanked by a bedroom on each side (see Houses 7, 4, and 3). Besides serving as a work room and family room, the side hall was also used to receive friends of the junior members of the family, so that elder members would not be disturbed (2). In other cases, the side buildings contain only the kitchen or a bedroom (see Houses 1, 2 and 6).

Simple courtyard houses with side buildings can generally be categorised into two types according to the plan. One is the separated style, where the main building and the side buildings do not share a common wall - they are separated by a corridor or an open passage (see Houses 8, 4, 3, 9 and 10) (Fig. 1-1-22, 1-1-23, 1-1-24). The second is the connected style, where the main building is connected to the side buildings (see Houses 1, 5, 2, 6 and 7). In some houses belonging to the connected style, the courtyard is surrounded by a corridor which joins all the rooms and makes it unnecessary to cross the courtyard to reach other rooms in bad weather (see Houses 1, 5, 7, 8, 10).

The Ta men or front door usually opens onto the courtyard. In Houses 1, 6, 7, and 8, the front door is directly opposite the

---

1) See Liu Tun-Chen, General Account of the Chinese House, p 27 and p 30
2) Hsiao-Ming, 北平的四合院住宅 (The Four-in-one Courtyard House) in 故都鄉情 (Aspects of life in Peking), (Taipei: Ta-Ti, 1983, p 3

ancestral hall. In a "three-in-one" courtyard house, the entrance is simply a door in the front wall, while in "four-in-one" courtyard houses, the front entrance is usually in the Tao tso (reversed building) and is extended to include a door hall. In wealthier families, the rooms on both sides of the door hall were occupied by doormen, sedan bearers or servants.

The front door in many houses in Northern China is not located in the reversed building but in the wall to its side (see Houses 4, 3 and 9). In these houses, upon entering the front door, one faces a side wall of the side building in the form of a spirit wall. The reasons for both the entrance on the side and the spirit wall can be traced to Yang Chai Theory, which is the theme of Part 2 of this thesis.

Another location for the front door is found in Kuangtung. In House 2, the entrances are in the walls next to the two side buildings, while opposite the ancestral hall we find only a blank wall. This type is seldom found in other areas and the reason for this formation which remains unclear may lay in regional customs.

The width of front door ranges between one to two metres. The ideal measurement for doors was calculated with the special door rule or Lu Ban rule, and its use will be explained in Part 2.

In some farm houses, the front door is missing altogether (see House 5). The reason for the lack of a front door is to facilitate the coming and going of family members with their farming equipment. This type of house in which the ancestral hall is not protected by an outer wall or building is only found in rural areas.

Another element which is found in all courtyard houses is the courtyard. In most houses, the courtyard is surrounded by the main building, side buildings or side walls and the reversed building or front wall. Only in some rural houses (eg. House 5) is it open on the front side. In the previously mentioned examples of "three-in-one" and "four-in-one" courtyard houses, the percentage of area of the courtyard in relation to the whole house compound is:

House 1 : 15 %	House 6 : 13 %
House 2 : 7 %	House 7 : 14 %
House 3 : 40 %	House 8 : 6 %
House 4 : 33 %	House 9 : 22 %
House 5 : 26 %	House 10 : 22 %

In many Southern Chinese houses such as Houses 2 and 8, the size of the courtyard is so small that it is merely called "heavenly well" (天井), while in Northern China, the size of the courtyard sometimes exceeds 1/3 the area of the whole house (see Houses 4 and 3). The reason for both types of courtyards can be attributed to the climate. This aspect will be discussed later in the chapter.

The importance of the courtyard to a Chinese family can be seen from its many functions:

1. Many houses in both Northern and Southern China have no windows on the outer wall (see Houses 1, 5, 2, 8, 4, 3, and 10). All windows open to the courtyard, so that both natural lighting and ventilation depend on the courtyard.

2. Farmers dry their grain and clean their farm tools in the courtyard.

3. The courtyard is a playground for children and a resting place for adults.

4. Plants and flowers are grown in the courtyard.

5. The worship of the god of Heaven and the god of Earth (or local

god) during annual festivals takes place in the courtyard.

6. Different household chores such as the washing and drying of clothes, washing food, etc. take place in the courtyard.

7. Festival banquets are held in the courtyard.

8. It acts as a passageway to any room in the house.

Owing to its multiple functions, the courtyard has been described as the actual locality in which Chinese life takes place (1).

To adjust to the increased needs of the joint family, the basic courtyard house developed in different directions, from which three principal styles can be found, which are representative of the various geographical backgrounds.

The following description of the functions and practical utilisation of these enlarged courtyard houses are based on 22 representative cases, most of which are extant (2).

1.1.3. Three types of development in Chinese joint family courtyard houses (Northern and Southern)

The standard plan of a simple Chinese courtyard house has been described as three to four linear buildings forming a rectangle and surrounding a central courtyard. Such a rectangular unit is called a chin (進). The meaning of the word in Chinese is 'entry', and the length of the housing unit from the front door across the courtyard to the furthest point - the ancestral hall - is called

---

1) See Wang Cheng-Hua, 華厦意象 (Chinese Images) in (New Treaties on Chinese Culture), Volume on Arts, Taipei, Lien-chien, 1982, p 665-749.
2) Although most of the examples still exit, they are either no longer in use or have become inhabited by many unrelated families at the same time, thus losing their original functions.

Figure 1-1-12 The simplest courtyard house

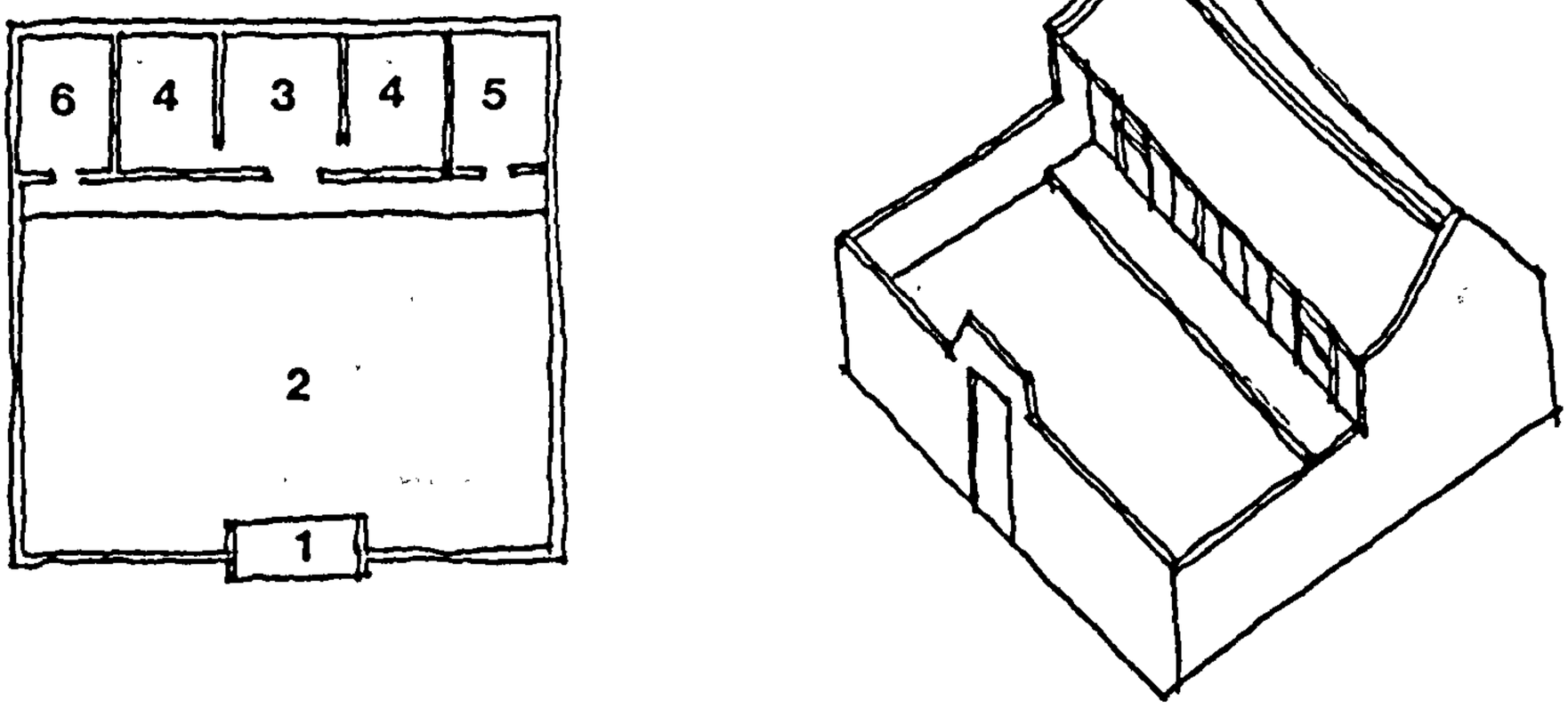


Figure 1-1-13 A "Three in one" courtyard house
(from Lee Chien Lang, 1978, p 20)

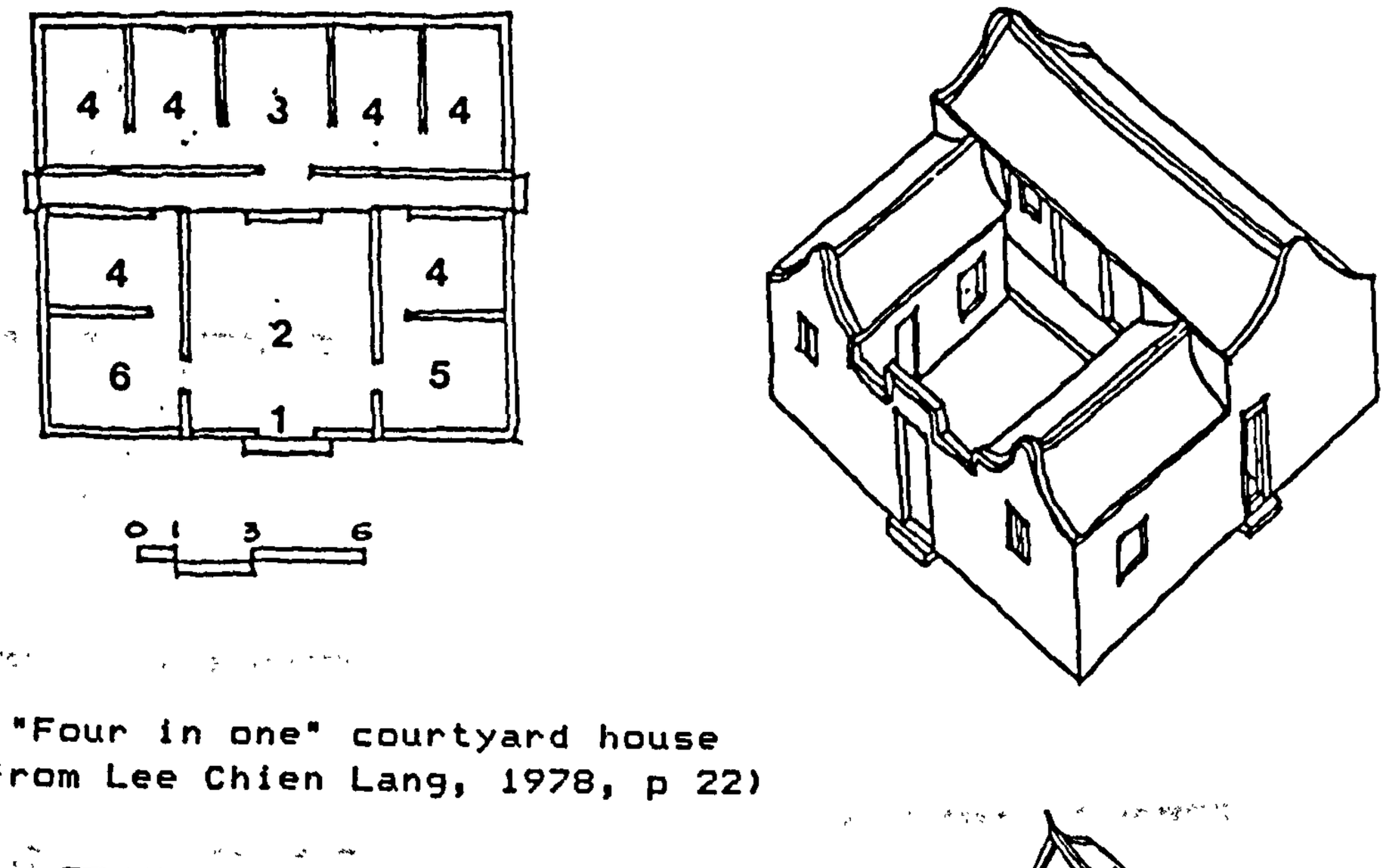


Figure 1-1-14 A "Four in one" courtyard house
(from Lee Chien Lang, 1978, p 22)

1. Front door 2. Courtyard 3. Ancestral hall 4. Bedroom 5. Kitchen
6. Storage 7. Side hall

Figure 1-1-15 House 1 in Kiangsu province
(from Liu Tun-Chen, 1957, p 78)

A. 14 sq. m. B. 96 sq. m. C. 14.5 %

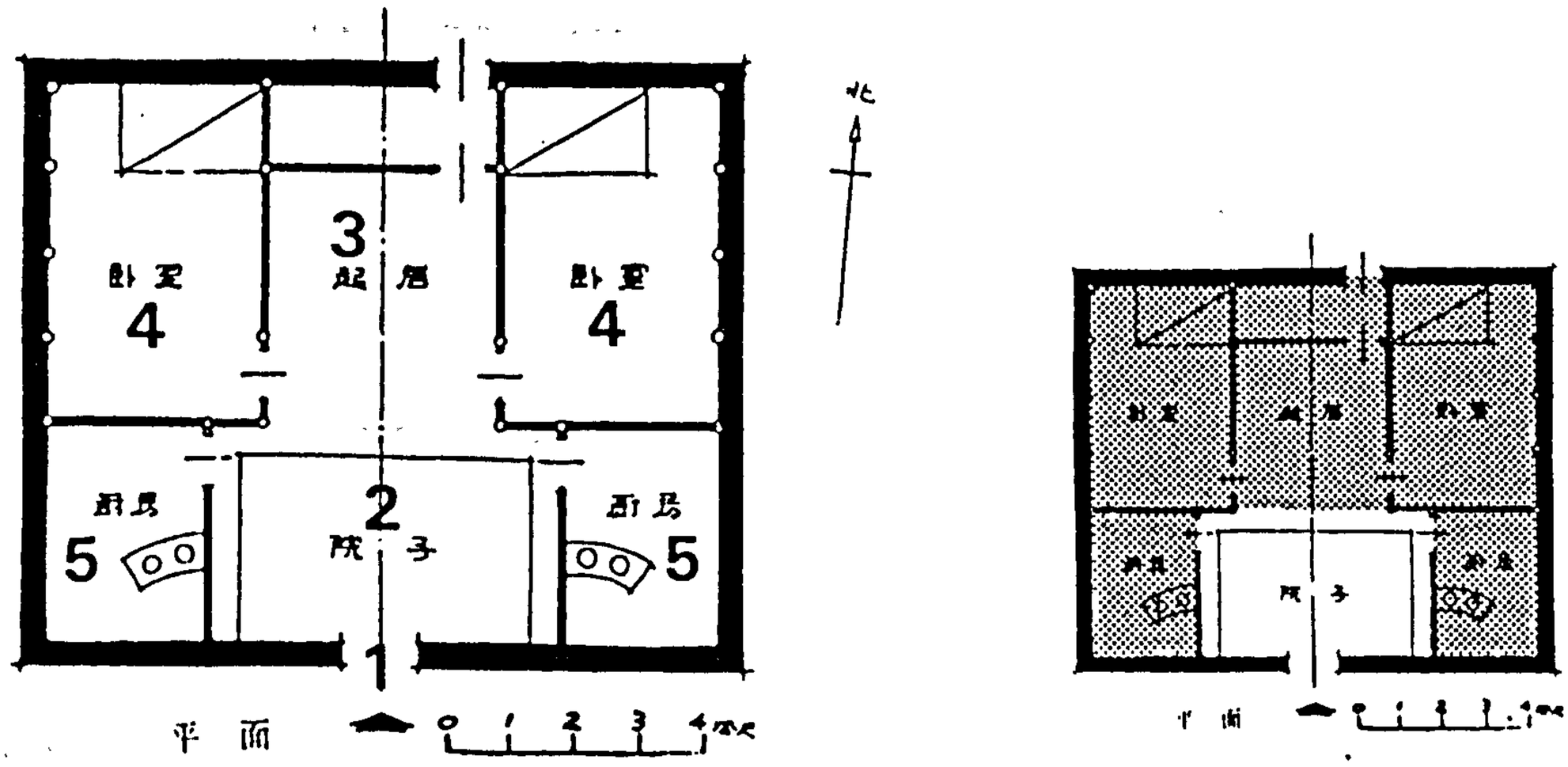
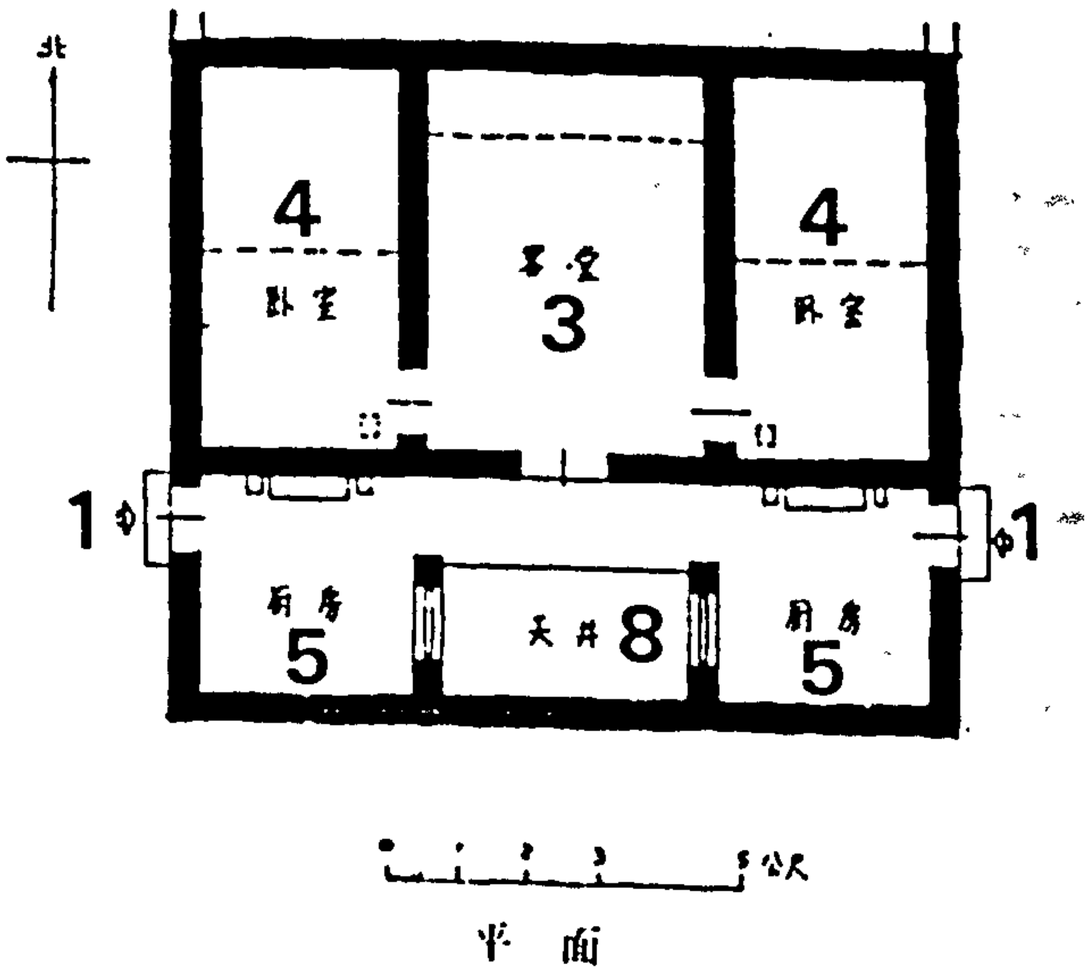
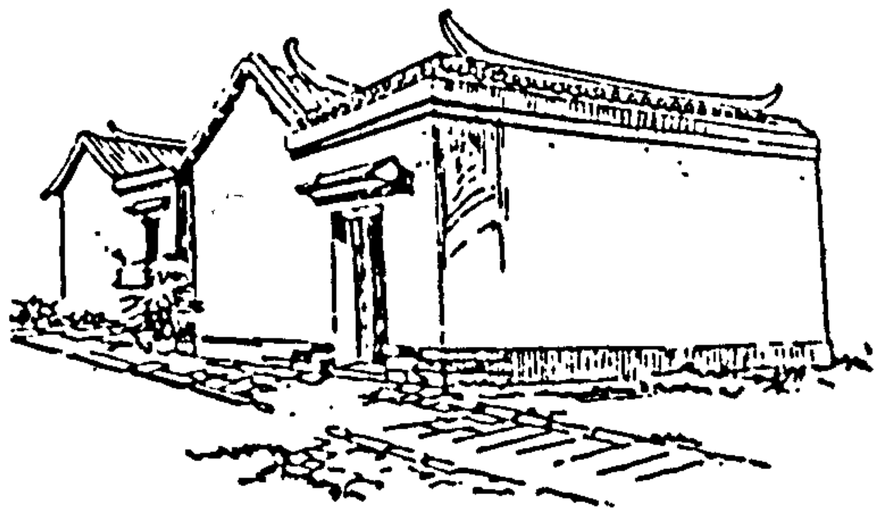
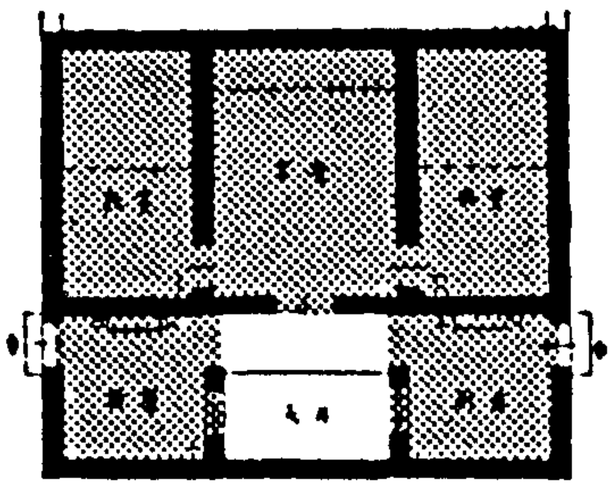


Figure 1-1-16 House 2 in Kuangtung province
(from Liu Tun-Chen, 1957, p 79)

A. 7 sq. m. B. 94 sq. m. C. 7.4 %





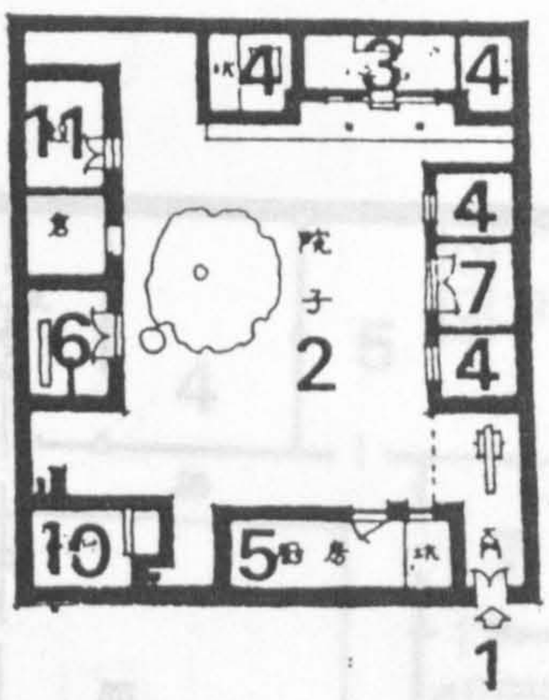


B. Area of whole compound
C. Percentage of courtyard area in whole compound

1. Front door 2. Courtyard 3. Ancestral hall 4. Bedroom 5. Kitchen
6. Storage 7. Side hall 8. Heavenly well

Figure 1-1-17 House 3 in Hopei province
(from Liu Tun-Chen, 1957, p 95)

C. 40 %



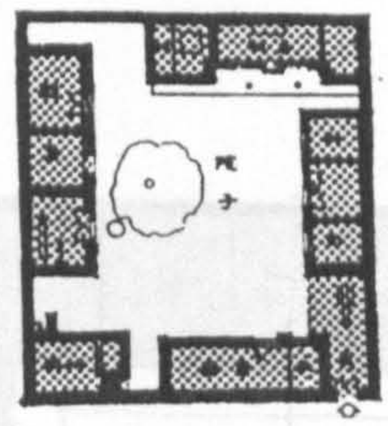
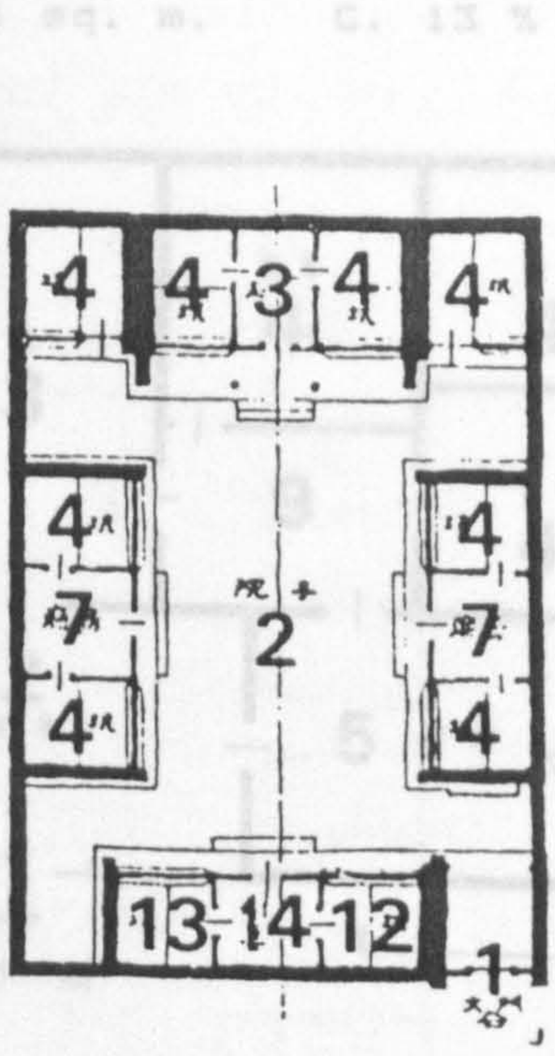
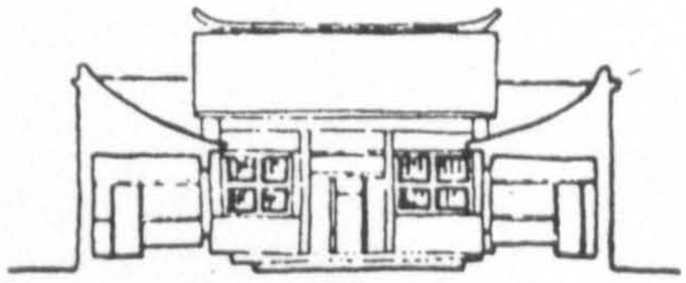
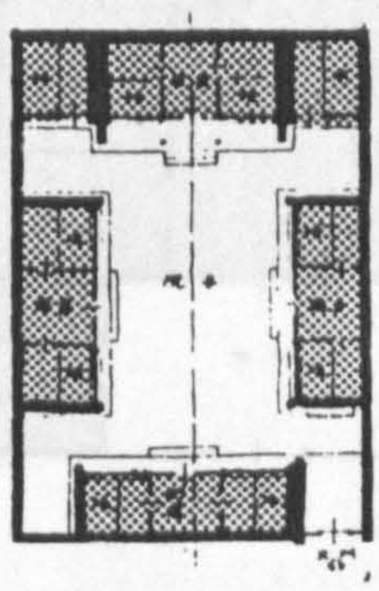


Figure 1-1-18 House 4 in Peking
(from Liu Tun-Chen, 1957, p 91)

C. 33 %





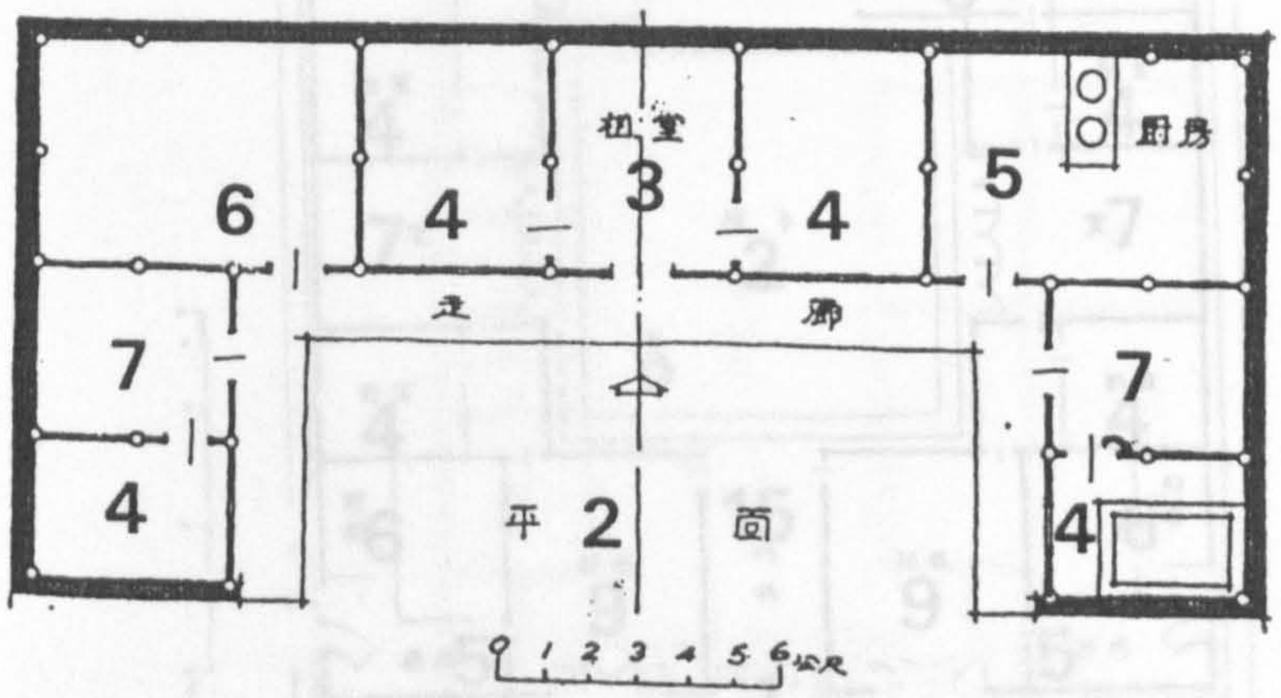


C. Percentage of courtyard area in whole compound

1. Front door 2. Courtyard 3. Ancestral hall 4. Bedroom 5. Kitchen
6. Storage 7. Side hall 8. Heavenly well 9. Family room 10. Toilet
11. Granary 12. Servant's room 13. Guest room

Figure 1-1-19 House 5 in Szechuan province
(from Liu Tun-Chen, 1957, p 78)

A. 79 sq. m. B. 304 sq. m C. 26 %



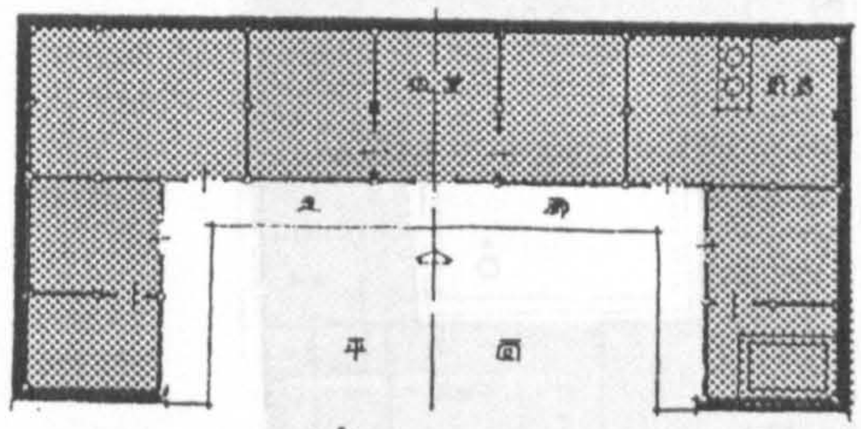
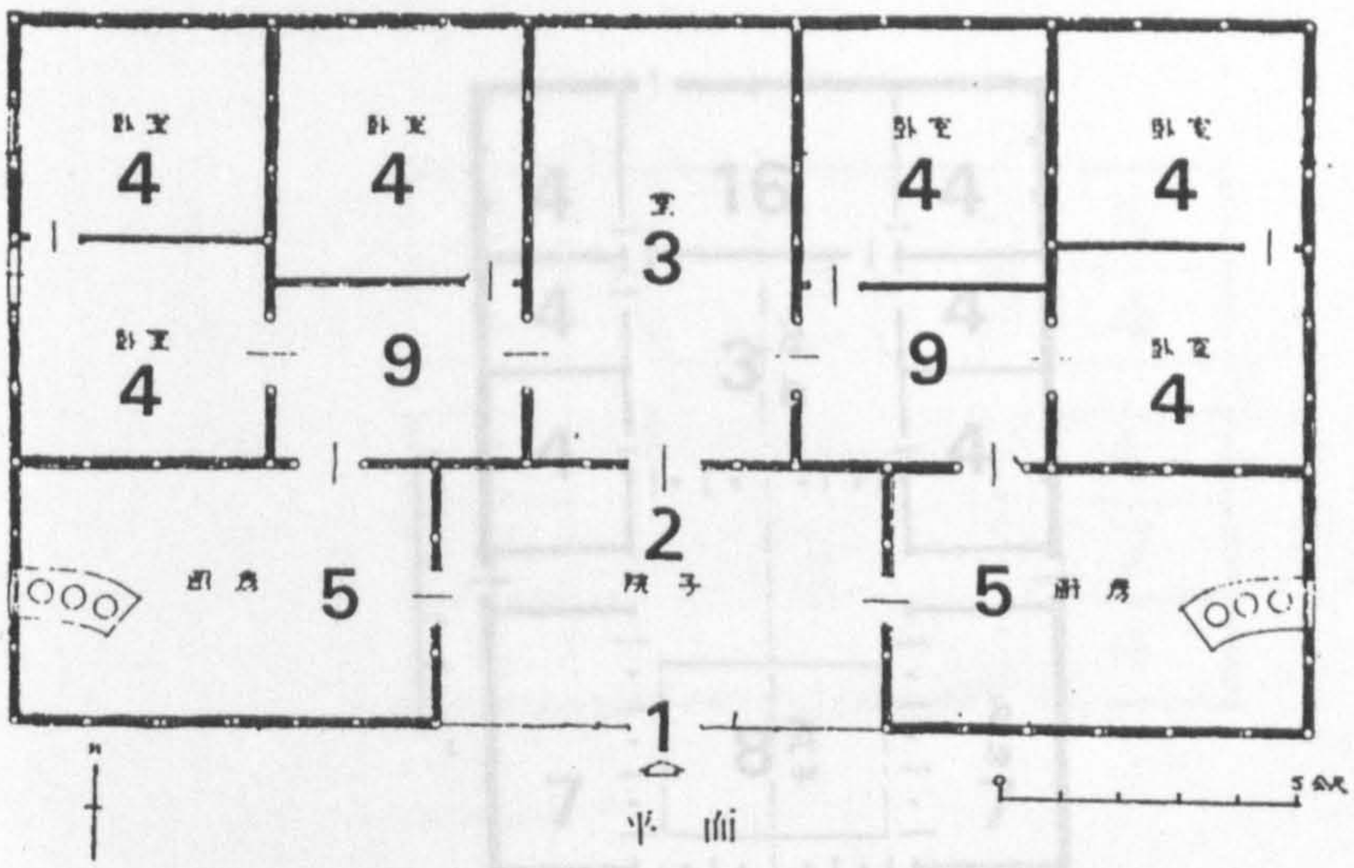
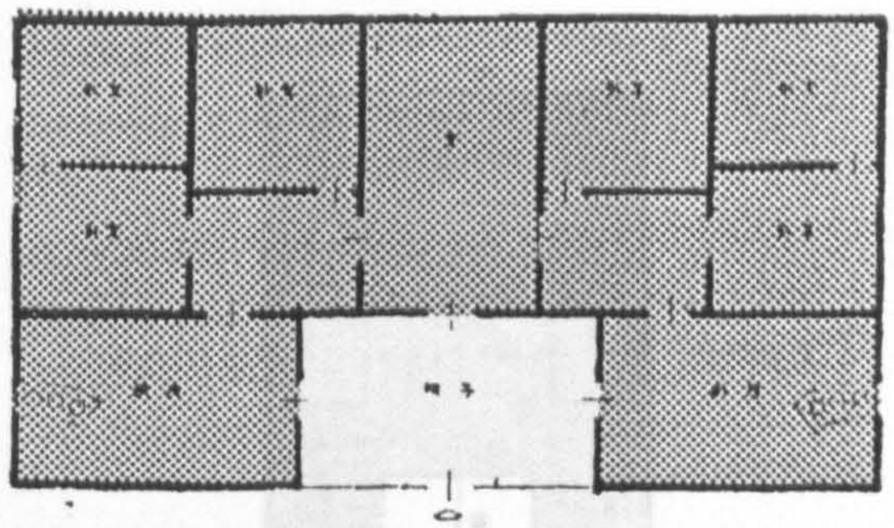


Figure 1-1-20 House 6 in Shanghai
(from Liu Tun-Chen, 1957, p 80)

A. 30 sq. m. B. 231 sq. m. C. 13 %





A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in whole compound

1. Front door 2. Courtyard 3. Ancestral hall 4. Bedroom 5. Kitchen
6. Storage 7. Side hall 8. Heavenly well 9. Family room

Figure 1-1-21 House 7 in Shanghai
(from Liu Tun-Chen, 1957, p 87)

A. 104 sq. m. B. 756.7 sq. m. C. 13.7 %

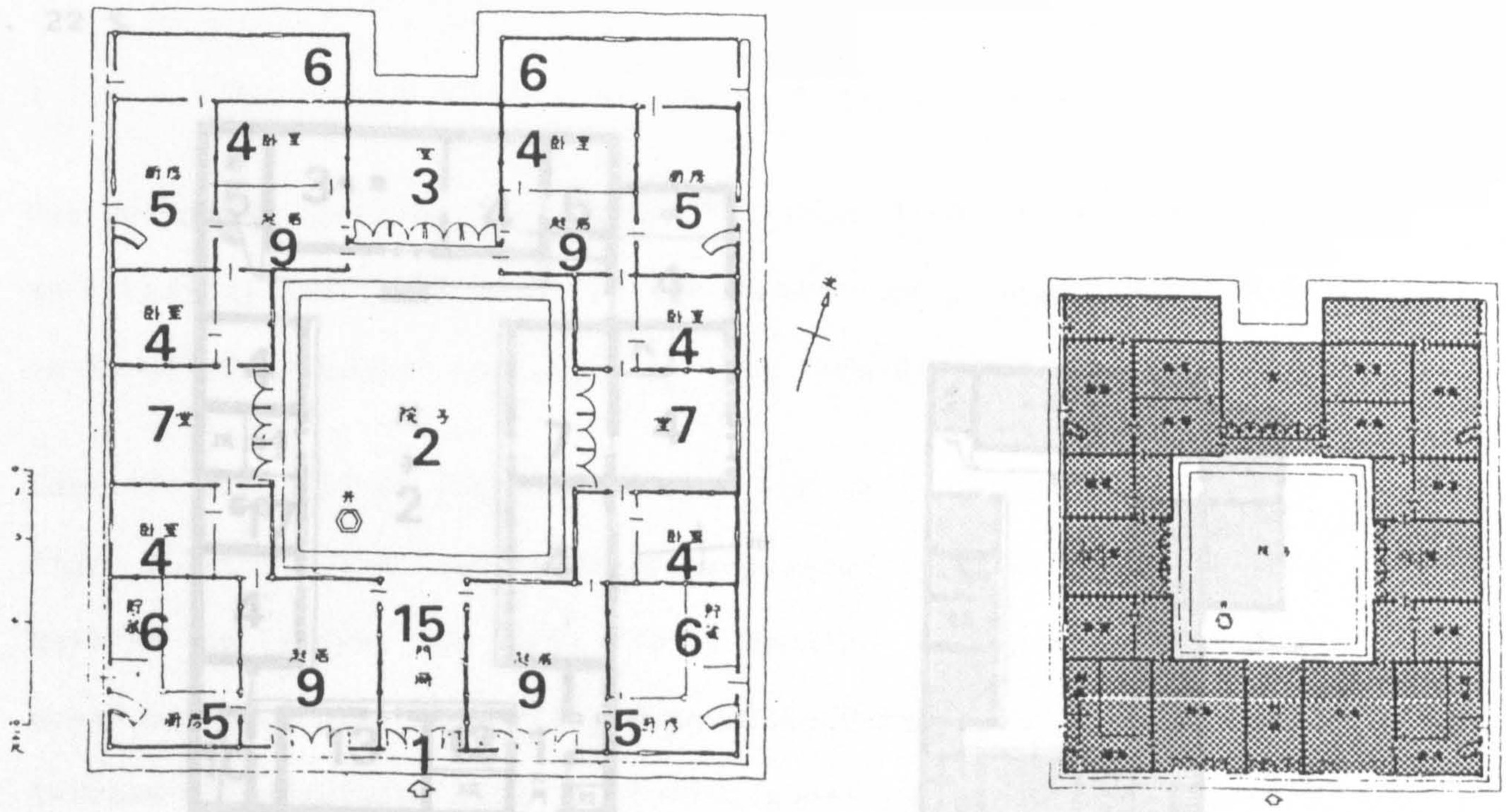
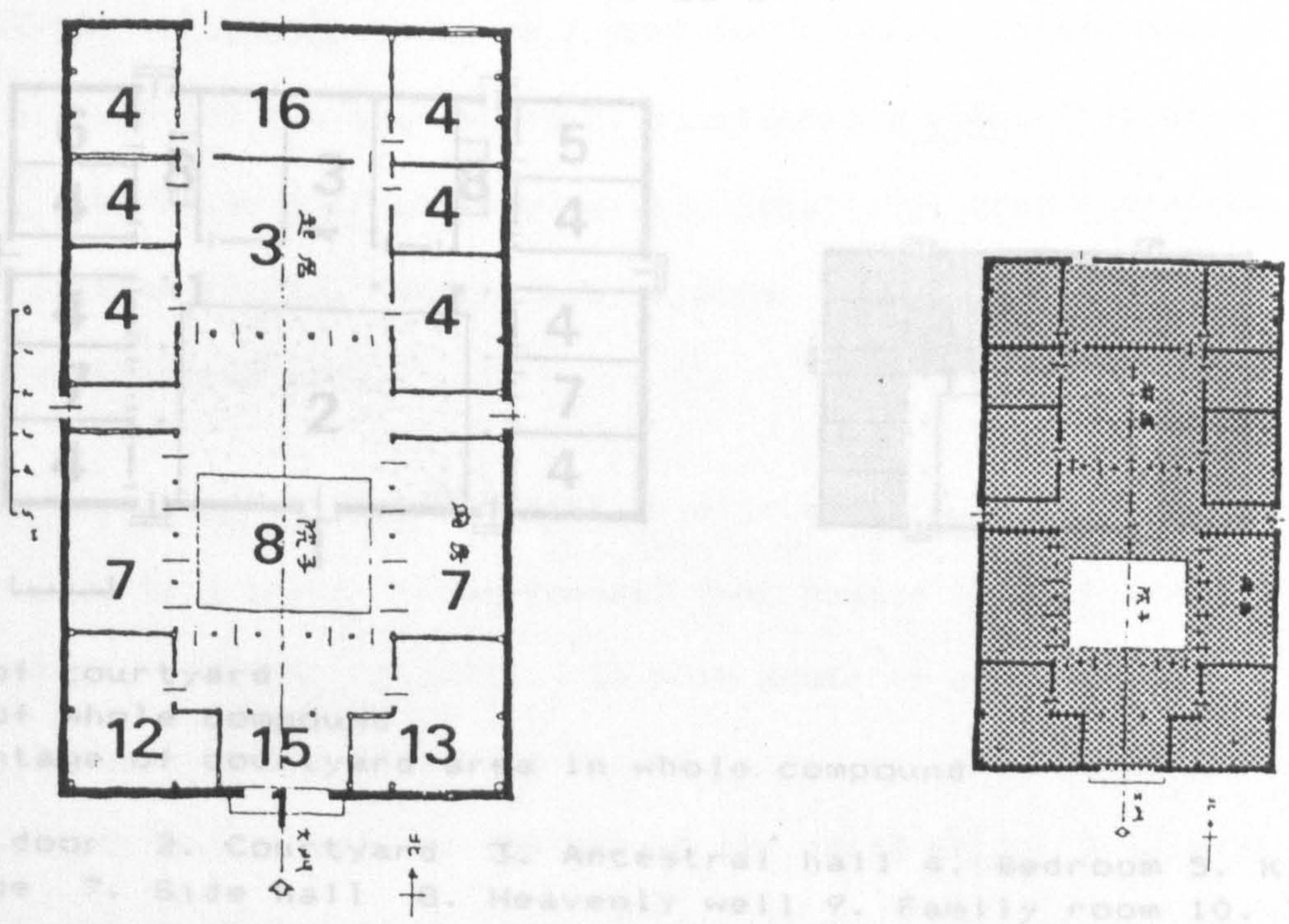


Figure 1-1-22 House 8 in Hupei province
(from Liu Tun-Chen, 1957, p 90)

A. 13.7 sq. m. B. 210 sq. m. C. 6.5 %



A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in whole compound

1. Front door 2. Courtyard 3. Ancestral hall 4. Bedroom 5. Kitchen
6. Storage 7. Side hall 8. Heavenly well 9. Family room 10. Toilet
11. Granary 12. Servant's room 13. Guest room 14. Sitting room
15. Door hall 16. Back hall or Back room

Figure 1-1-23 House 9 in Shansi province
(from Liu Tun-Chen, 1957, p 95)

C. 22 %

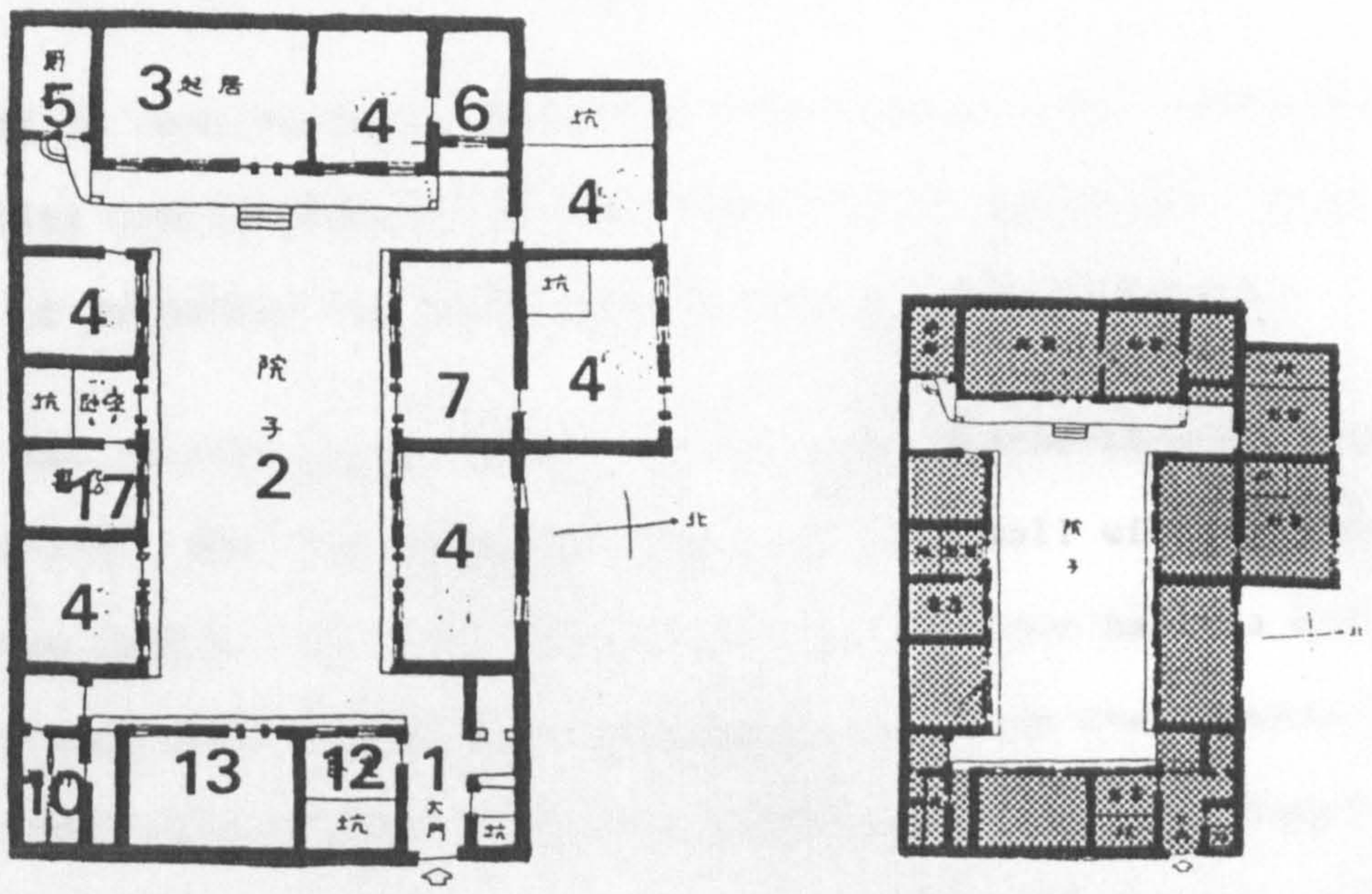
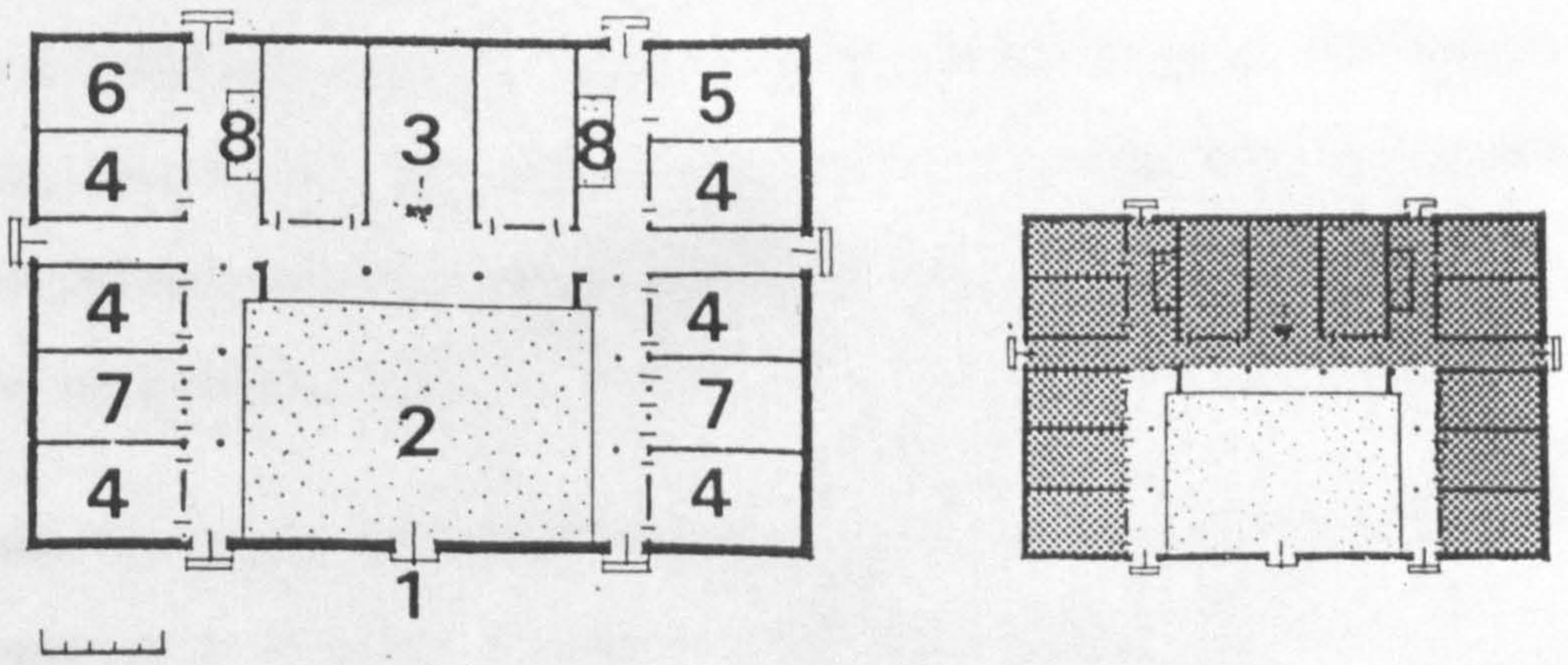


Figure 1-1-24 House 10 in Chekiang province
(Centre for Chinese Architectural Technology, 1984, p 105)

A. 137.5 sq. m. B. 625 sq. m. C. 22 %



A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in whole compound

1. Front door 2. Courtyard 3. Ancestral hall 4. Bedroom 5. Kitchen
6. Storage 7. Side hall 8. Heavenly well 9. Family room 10. Toilet
11. Granary 12. Servant's room 13. Guest room 14. Sitting room
15. Door hall 16. Back hall or Back room 17. Study room

the 'depth of the entry' (進深).

1.1.3.1. The longitudinal development of the courtyard house

One method of constructing a house for joint families or enlarging an existing courtyard house is the connection of one or more chins in front of or behind the basic chin to form a larger compound.

House 11 has another chin in front of the basic "three-in-one" (see Fig. 1-1-25). The two chins are separated by a wall with a door hall in the centre. In joint family houses, the door hall (a covered entrance area resembling a pavillion) indicates the boundary between the service area (including guest rooms) and the family residential area. Thus the first chin was the service area and contained the servant's room, storage, fuel room and guest room (i). A larger version of this style can be seen in House 12 (see Fig. 1-1-26). Although there is a yard in the back, it was mainly used as a livestock pen and cannot be considered a chin. Similar to House 11, the first chin was the service area, but also contained rooms of private tutors, which were adjacent to the study room in the main residential area.

Sometimes two chins which may differ in size are placed in front of and connected to a basic "three-in-one" (see Houses 13, 14 and 15) (Fig. 1-1-27, 1-1-28, 1-1-29). In both House 14 and House 15, a door hall connects the first and second chin, while in House 13, the door hall stands between the second and third chin. A lateral building can be found in the second chin of House 14 which contained the sitting hall where guests were received. In this case,

---

1) Guest rooms in Chinese houses were usually placed in the service area. An explanation for this is given in Chapter 2.

the ancestral hall was reserved for the worship of ancestors and other ceremonial purposes.

Houses 16 and 17 are examples of the connection of a chin both to the front and to the rear of the basic "three-in-one" (see Fig. 1-1-30 & 1-1-31). In both houses, the first and last chin served as the service area, while the central chin was the family residential area.

House 18 is a perfect example of three complete basic units (a "four-in-one" and two "three-in-ones") joined to form a large longitudinal house (see Fig 1-1-32). This house consists of 3 chins, and measures about 75 metres from the main gate to the end of the rear hall, containing several courtyards of different sizes on the central axis. Directly beyond the main gate is the service area with a small courtyard followed by a door hall and another courtyard, at the end of which stands a hall which was used as sitting hall to receive guests. Beyond this hall lies the third courtyard which is of a smaller size than the previous courtyard, as 1/5 of it was allotted to the sitting hall as additional space. The hall at the end of the third courtyard was the ancestral hall, and is followed by a fourth courtyard as large as the second, with the central room as the rear hall. The layout of this house permitted the main halls of all three chins to be situated along the central axis - the sitting hall, ancestral hall and rear hall.

The side buildings on either side of the first two chins face the 'fire-preventing mountain walls' (封火山牆) (1) of the sitting hall and ancestral hall respectively, and are separated from these

---

1) For a description on the different forms of the mountain wall, see Part 3, Chapter 3, "Decorative Elements of Yang Chai"

walls by a corridor and a narrow courtyard.

Some features which are typical of houses in Southern China can be seen in this house. Firstly, the originally large and wide courtyard has been walled off to form many small and sometimes narrow courtyards. Apart from the three larger central courtyards in front of the three halls, all others are heavenly wells which measure only 1.5 - 2 metres in width and 5 - 6 metres in length. Secondly, a corridor runs in front of all the buildings in the residential area (behind the door hall) and also behind the three halls on the central axis. Lastly, the doors and partitions between the three central halls and the courtyard to their front could be totally removed.

The reason for these three features can be attributed to the climate. Chekiang, which lies at 118 - 123 east and 27 - 31 north, has very hot summers (average July-August temperature is 27-30 C.) and not too cold winters. Owing to its situation on the coast, it has a relative humidity of 80 % and a long warm season. Thus adequate ventilation and thermal insulation became two major determinants in housing construction in this province.

High walls or buildings surrounding the narrow courtyards prevented the sun's rays from hitting the courtyard, which was therefore almost always in the shade. Air currents were cooled on passing these shady areas to become a pleasant breeze, and alleviated the problem of ventilation in the house. By building wide corridors in front of all the rooms, the same effect was achieved - the sun's rays were prevented from directly hitting the rooms. The extension of the three halls to the courtyards to their front by the removal of partitions and doors allowed an unobstructed flow of air from

the front to the rear of the house along the central axis.

In order to obtain more living space, buildings in the last chin are sometimes constructed with two storeys. Two-storey buildings are commonly found in both single- and multiple-chin houses in Chekiang, which consists mainly of hills and mountains, rivers and lakes. As arable land in this province is scarce, a common saying notes: "Borrow from the heavens, not from the land" (惜天不惜地), reflecting the practice of constructing two storey buildings to save land (1).

In House 19, the ancestral hall was located in the second chin, and the two-storey lateral building in the third chin contained only the family room and bedrooms (see Fig. 1-1-33). The staircase is located against the rear wall of the building. In the section of the house, a gradual increase in the height of the lateral building with the addition of chins can be seen, culminating in the two-storey rear building. Similar to House 18, small courtyards (heavenly wells) are walled off in front of the side buildings and separated from the rooms by a corridor. Each side building in House 19 contains 17 rooms, which were grouped into three or four rooms to form small residential units including bedroom, family room and kitchen. This type of spatial arrangement enabled each nuclear family within the joint family to retain its privacy within its own living domain.

Another arrangement in houses with two-storey buildings was to place the ancestral hall on the second floor, above the sitting hall. In House 20, what can usually be found in the second chin of

---

1) Centre for Chinese Architectural Technology, Institute of Architectural History, 浙江民居 (Houses of Chekiang), (Peking: Chinese Architectural Industry Publ., 1984), p 4

a two-chin house has been moved to the second storey of this single-chin house, including the ancestral hall, bedrooms and storage rooms (see Fig. 1-1-34). The ground floor contained the sitting hall and two bedrooms, and in the side buildings the kitchen, stables and pigsty. The two stairways are located ~~on~~ between the lateral and the side buildings.

This type of single-chin, two-storeyed houses is called "chop style" (一顆印) (Chinese seal shaped) and can be found in the provinces of Yünnan, Szechuan, Hunan, Hupei and southern Anhui (1).

This house form suits different climatic needs. As the province of Yünnan lies at a high altitude in the windswept Yünnan Kueichou Plateau, the buildings consist of two-storeys to protect the house and small courtyard from duststorms which frequent the province (2).

A study of the chop style house found in south-eastern Anhui examined the relation between the plan of the dwellings and the climate of this hilly area (3). As most houses can be found in the valleys and basins, frequent thunderstorms throughout the whole year bring numerous floods to these areas of poor drainage. The dwellings are therefore two-storey houses with the first floor devoid of windows and lacking a back door. Unlike other courtyards in Southern China which were placed for better ventilation, the

---

1) See Liu Chih-Ping, 雲南昆明一顆印住宅 (Chop Style Houses in Kunming, Yünnan) in 中國營建學社彙刊 (Journal of the Society for Research in Chinese Architecture), Vol. 7, No. 1, 1930
2) See Liu Chih-Ping, 昆明東北鄉古建築圖錄及解說 (Picture and Illustration Album of Ancient Buildings in Dongbeixiang Village near Kuming) in 科技史文集 (Collection of Scientific History), Vol. 2, 1979, pp 28-31
3) See Chang Chung-I, Ts'ao Chien-Ping, Ch'uan Kao-Chieh, Tu Hsiu-Chün, 徽州明代住宅 (Ming Dynasty House in Huichou), (Peking: Building and Public Works Publishing House, 1957)

courtyards in south-eastern Anhui fulfilled another purpose. The small courtyards generally contain a rectangular stone pool dug into the ground to prevent flooding by collecting rain water from the courtyard and from the roofs, which had no drainpipes. The rain water held in the pools could then pass through drainage outlets to the outside (1).

Houses 21 and 22 are both examples of enlarged chop style houses (see Fig. 1-1-35 & 1-1-36). House 21 is a combination of two two-storeyed "three-in-ones" one placed behind the other, while Houses 22 joins a two-storeyed "three-in-one" with a reversed "three-in-one", forming a H-shape with only one lateral building. Chop style houses never exceed two chin (2).

From the examples of longitudinal joint family courtyard houses, the following common characteristics can be found:

1. Circulation within the house was only possible either along the central axis through the courtyards and halls or along the corridors surrounding the courtyards.
2. Except in rare cases, the front entrance is located along the wall facing the lateral hall in the first chin, either on the central axis or more toward the side.
3. An increase in the height of the lateral buildings can be observed with the addition of chins.
4. A general symmetry to both sides of the central axis can be seen in all the houses.
5. The longitudinal enlargement allowed for at most the connection of 5 chins, with 3 chins being the most common. As the width of the main buildings could not exceed 7 rooms (or 8 columns) and the

---

1) ibid, pp 15-16
2) ibid, p 14

complex could only develop lengthwise, the size of the whole complex was limited by the length of the building site.

6. The longitudinal development of the family joint courtyard houses emphasised the ceremonial importance of the buildings on the central axis. Although this house style was suited to the needs of the higher ranked, it possessed certain drawbacks which rendered it inconvenient for dwellings of the middle to lower class commoners or peasants : In moving from the interior of the dwelling to the exterior, the main hall of one to two chins must be crossed. This arrangement was inconvenient especially for peasant families (which formed the majority of the population) who would have to carry their family tools and equipment through the main halls to work and return with soiled clothing and dirt, which was inappropriate for crossing the main rooms along the central axis. To overcome this problem, another form of joint family courtyard houses developed which was suited to the needs of the peasants.

1.1.3.2. The lateral development of the courtyard house

In the Southern Chinese provinces of Kuangtung, Fukien and Taiwan, some large courtyard houses do not extend along the central axis. Their basic form consists of a "three-in-one" or "four-in-one" with additional buildings (known as protecting building or protective dragon) erected beside the two side buildings rather than behind the chin (see Houses 23 and 24), forming a lateral development of the courtyard house (see Fig. 1-1-37 & 1-1-38). Owing to the need for many people to help cultivate the land, even nuclear families within the joint peasant families were large, creating the need for more residential space. Senior members were housed in the buildings surrounding the central courtyard, while families of younger gene-

Figure 1-1-25 House 11 in Peking
(from Liu Tun-Chen, 1957, p 92)

A. 396 sq. m. B. 1200 sq. m. C. 33 %

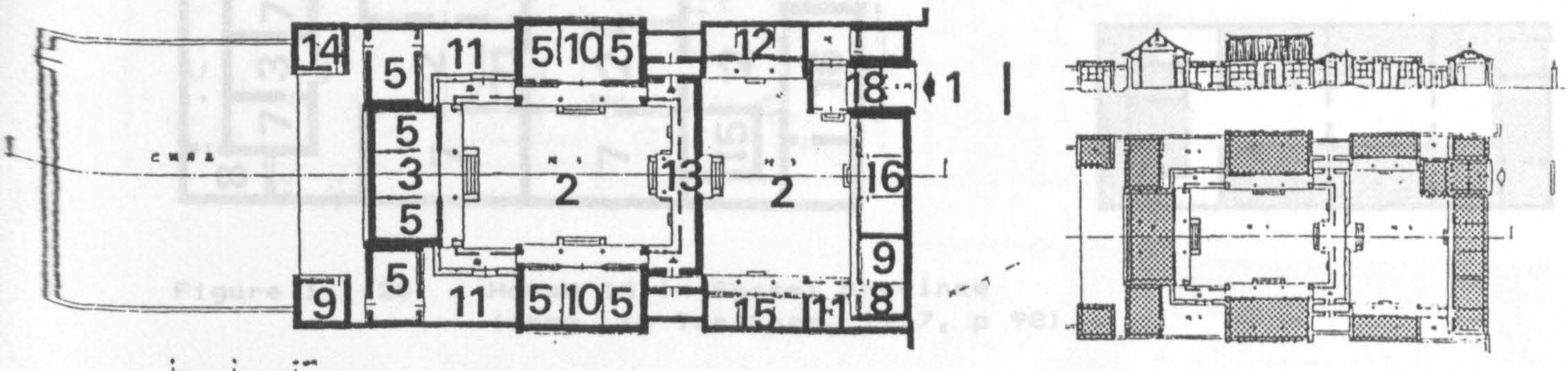
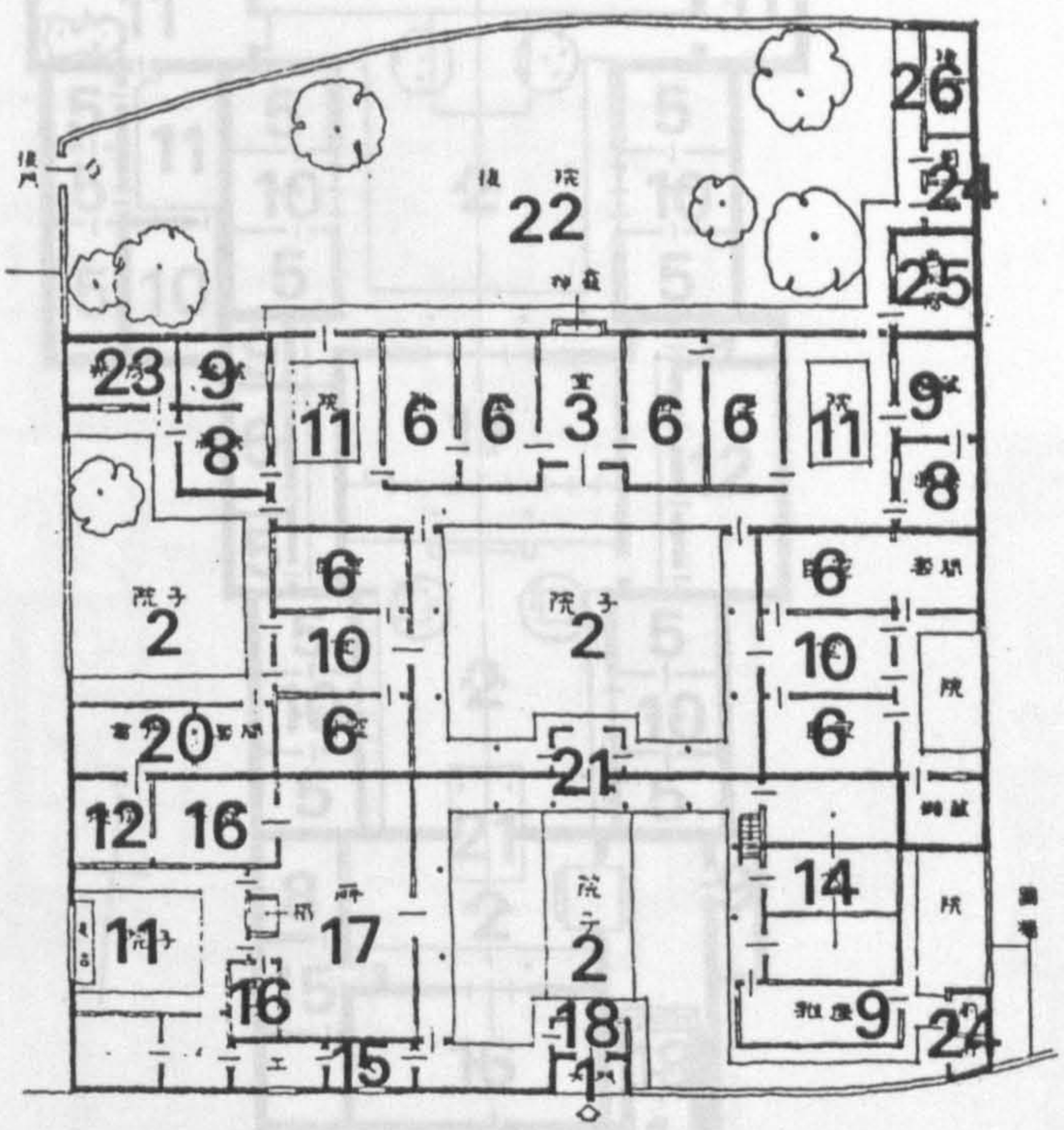
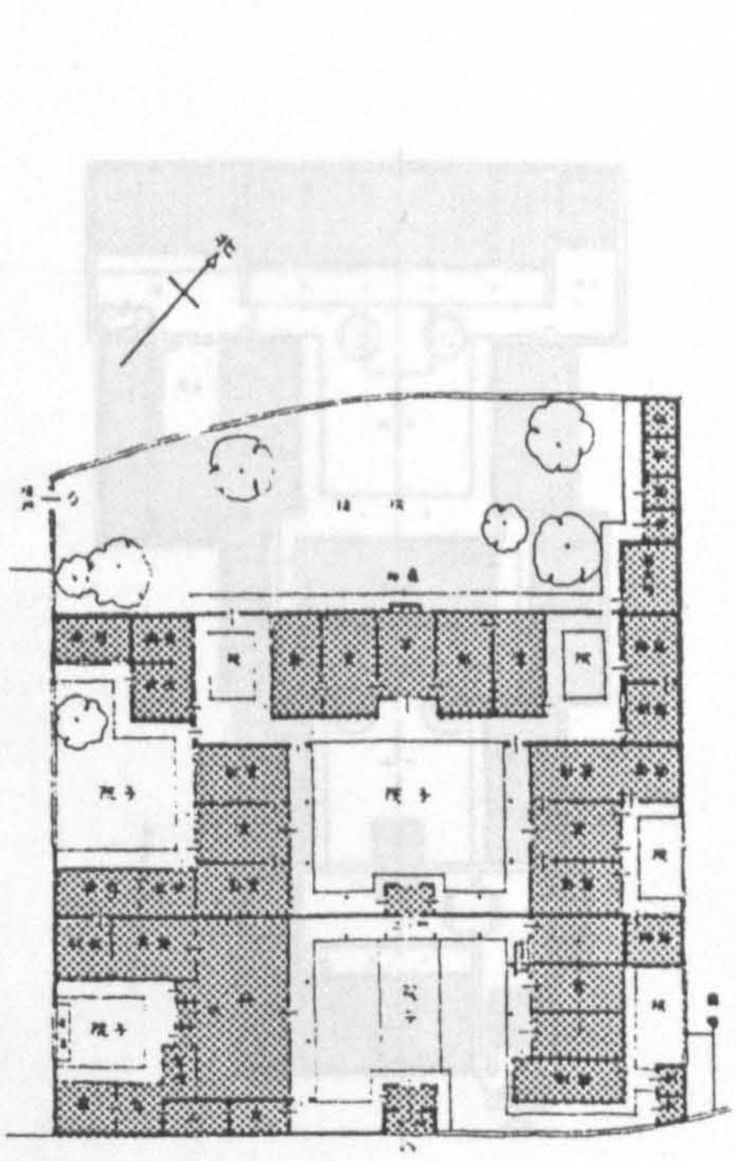


Figure 1-1-26 House 12 in Hunan province
(from Liu Tun-Chen, 1957, p 88)

C. 36 %





A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in whole compound

1. Front door 2. Courtyard 3. Ancestral hall 5.6. Bedroom 8. Kitchen 9. Storage 10. Side hall 11. Heavenly well 12. Family room 14. Granary 15. Servant's room 16. Guest room 17. Sitting room 18. Door hall 19. Back hall 20. Study room 21. Second door hall 22. Rear yard 23. Firewood room 24. Toilet 25. Room for pounding rice to remove the husk 26. Pigsty

Figure 1-1-27 House 13 in Honan province
(from Liu Tun-Chen, 1957, p 96)

A. 143 sq. m. B. 462 sq. m. C. 31 %

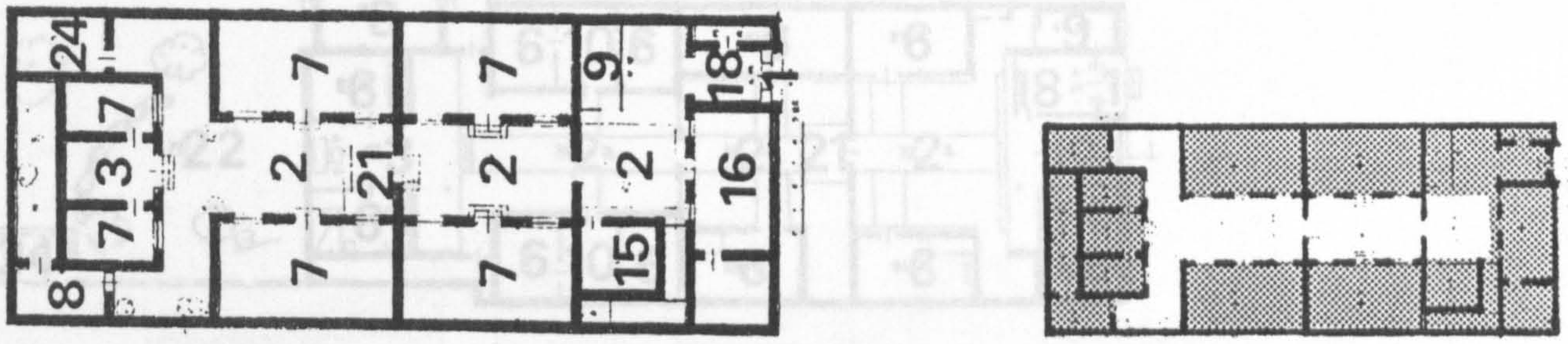
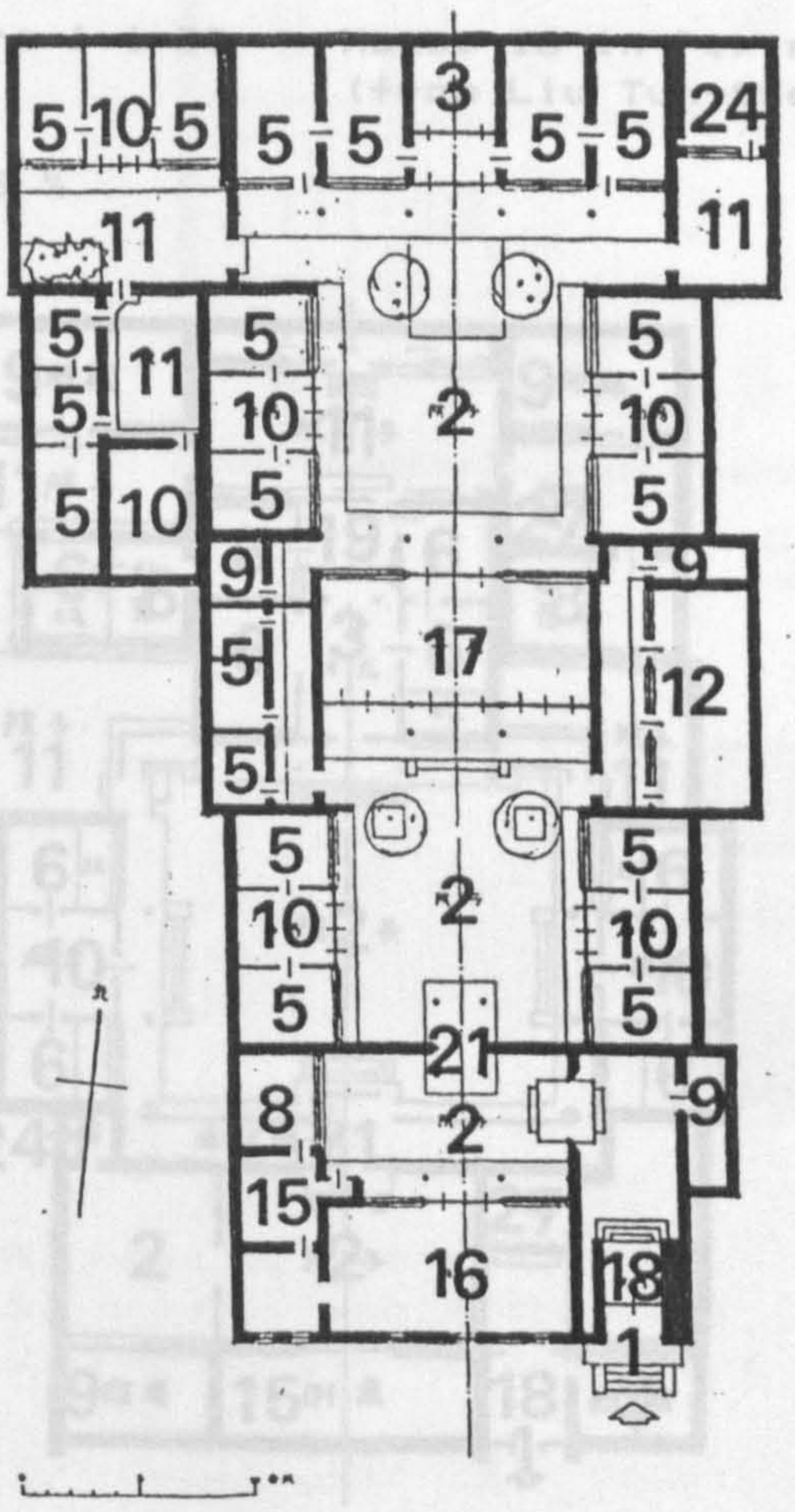
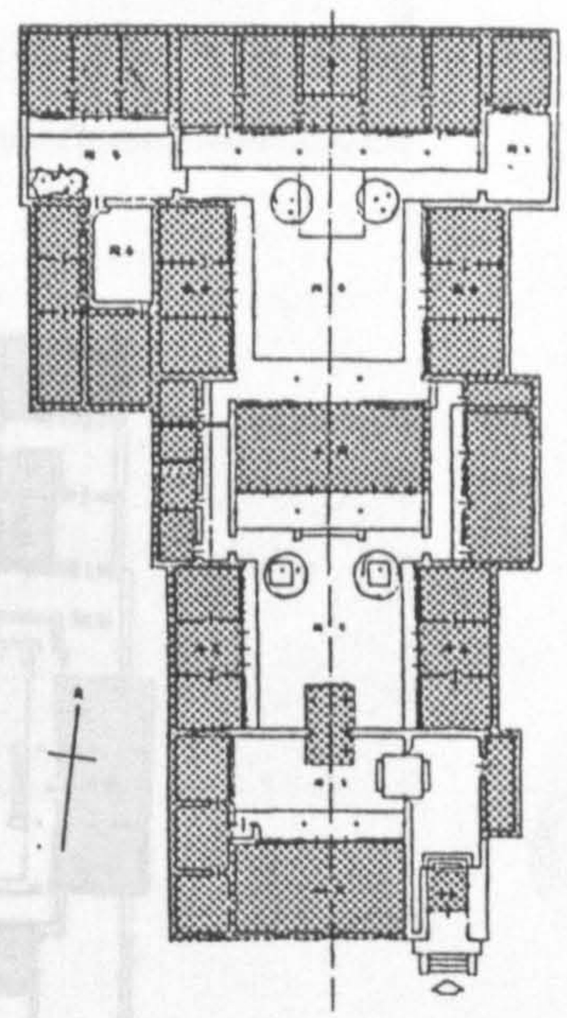


Figure 1-1-28 House 14 in Shansi province
(from Liu Tun-Chen, 1957, p 98)

A. 667 sq. m. B. 1105.5 sq. m. C. 60 %



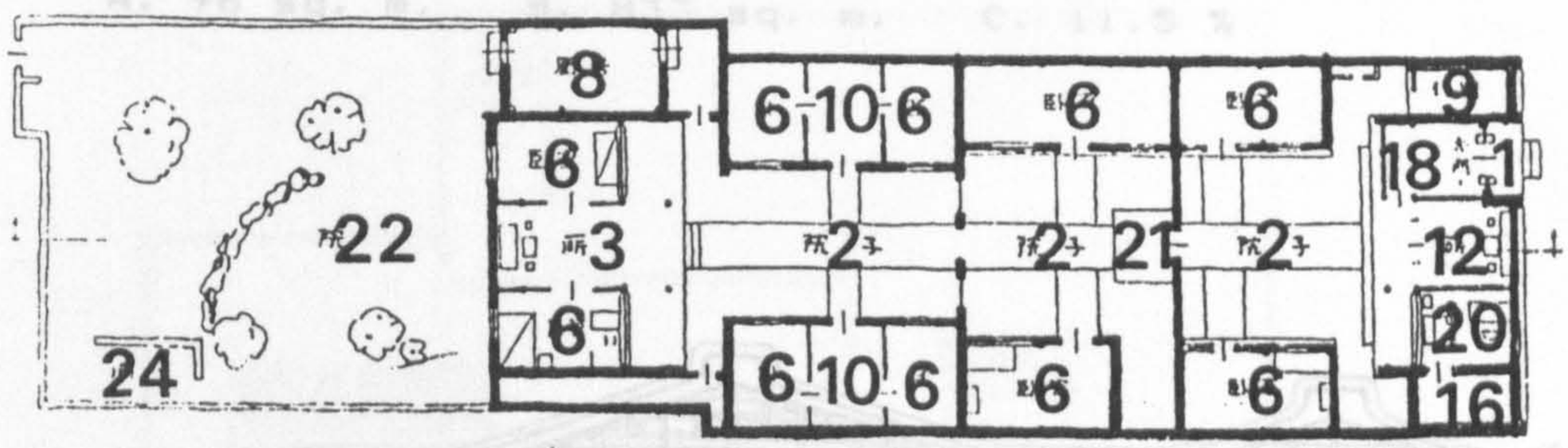


A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in whole compound

1. Front door 2. Courtyard 3. Ancestral hall .6.7.Bedroom 8. Kitchen 9. Storage 10. Side hall 11. Heavenly well 12. Family room 14. Granary 15. Servant's room 16. Guest room 17. Sitting room 18. Door hall 19. Back hall 20. Study room 21. Second door hall 22. Rear yard 23. Firewood room 24. Toilet

Figure 1-1-29 House 15 in Hopei
(from Liu Tun-Chen, 1957, p 99)

A. 176.8 sq. m. B. 264.5 sq.m. C. 67 %



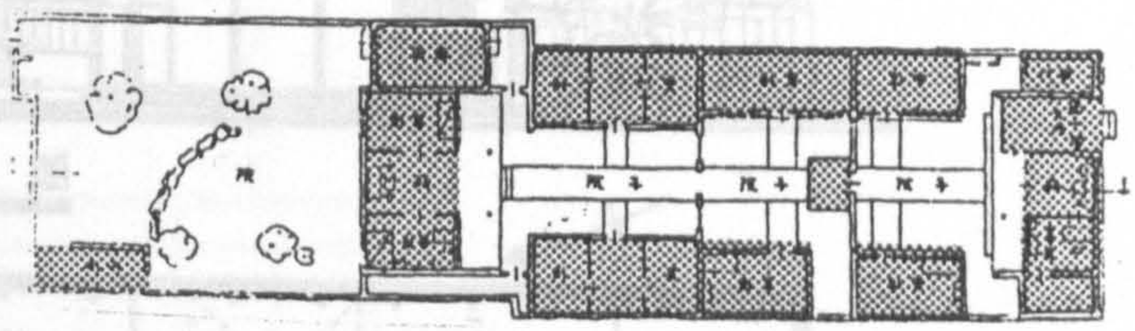
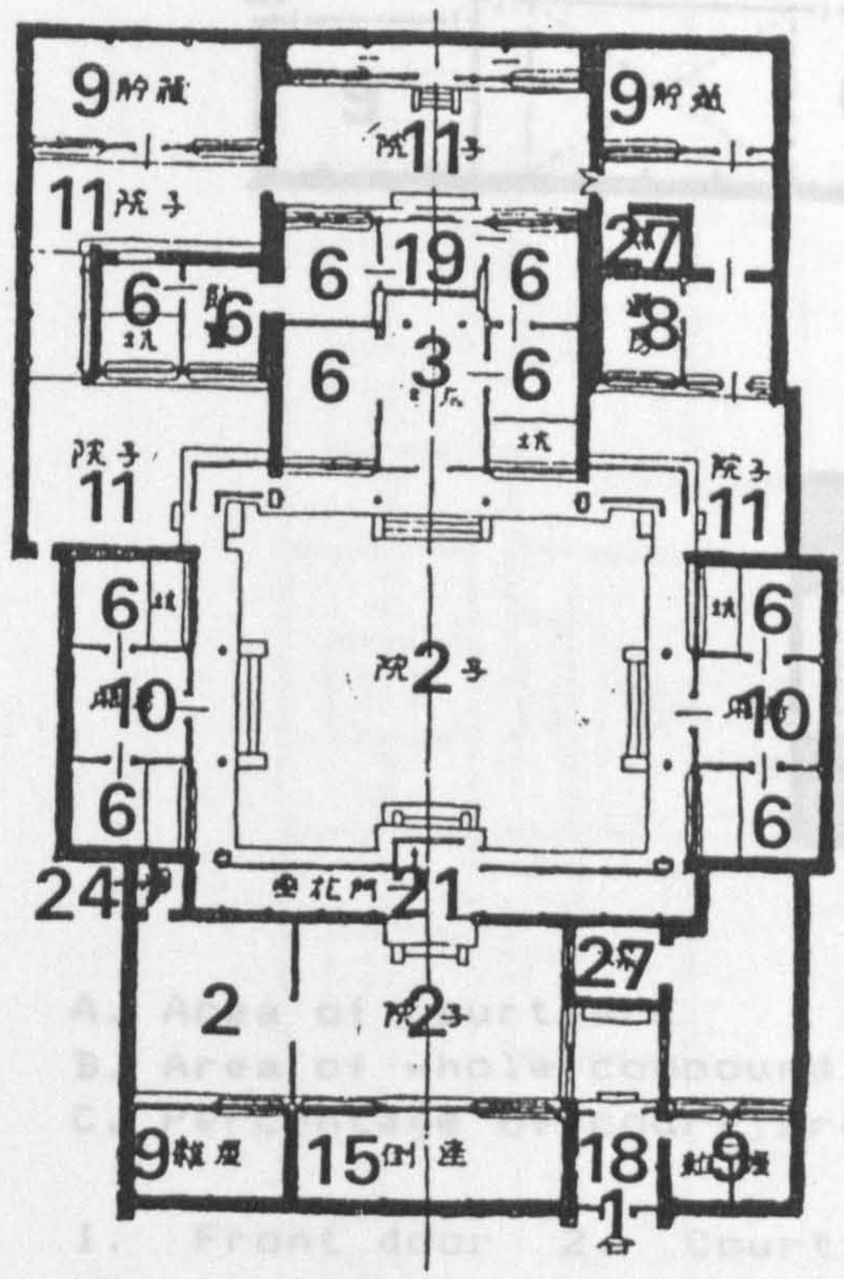
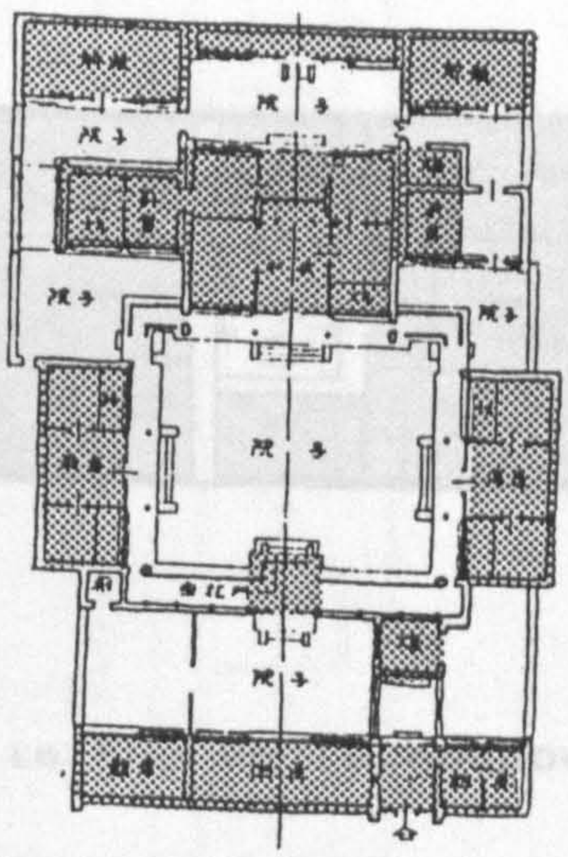


Figure 1-1-30 House 16 in Peking
(from Liu Tun-Chen, 1957, p 91)

C. 36 %



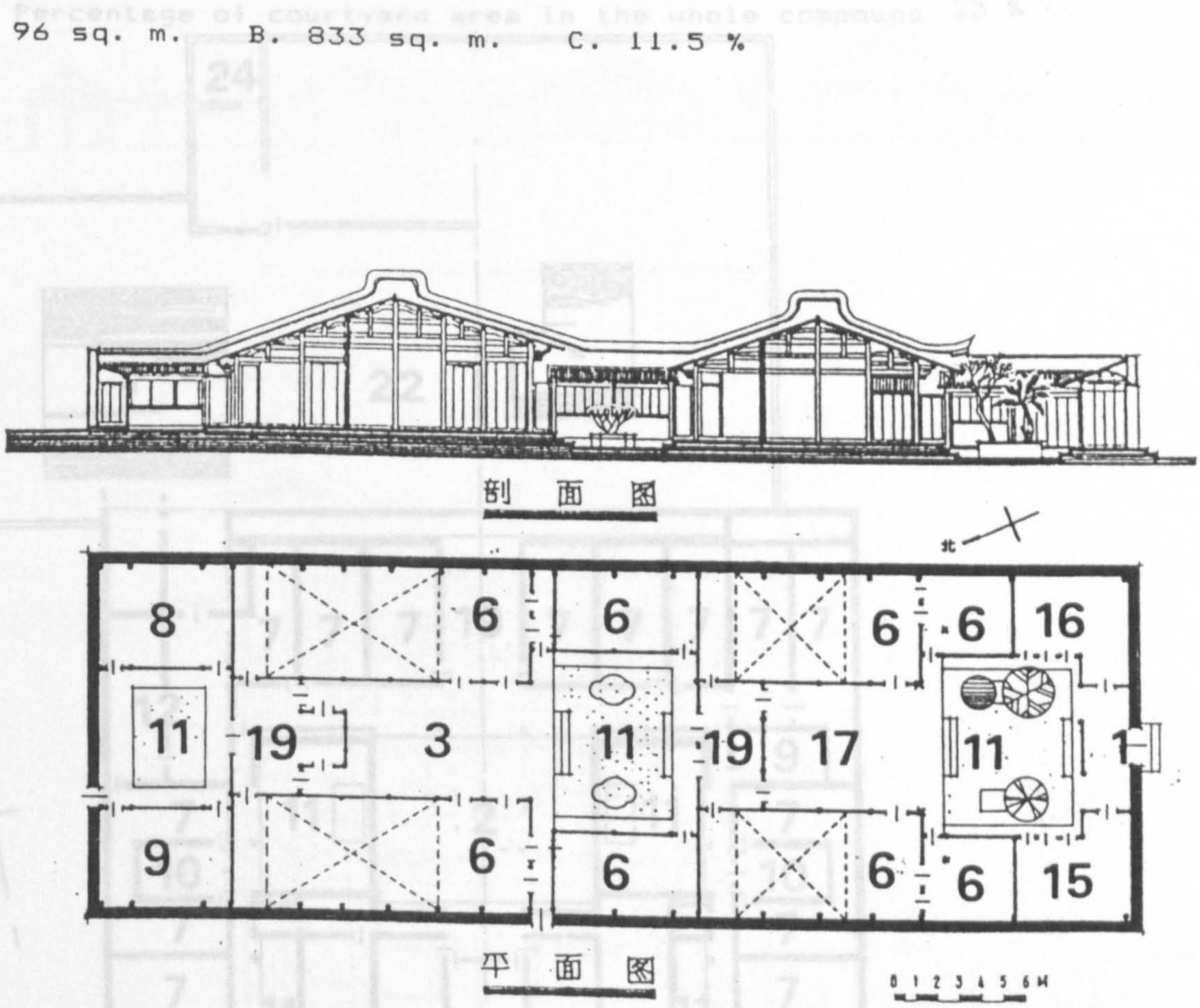


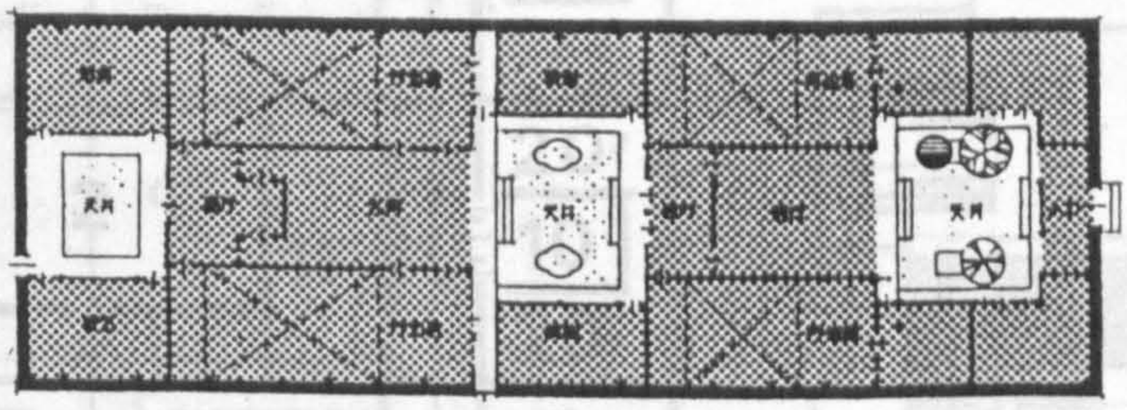
A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in the whole compound

1. Front door 2. Courtyard 3. Ancestral hall 6. Bedroom 8. Kitchen 9. Storage 10. Side hall 11. Heavenly well 12. Family room 14. Granary 15. Servant's room 16. Guest room 17. Sitting room 18. Door hall 19. Back hall 20. Study room 21. Second door hall 22. Rear yard 23. Firewood room 24. Toilet 25. Room for pounding rice to remove the husk 26. Pigsty 27. Fuel room

Figure 1-1-31 House 17 in Fukien province
(The Architect, Peking, No. 19, p 179)

A. 96 sq. m. B. 833 sq. m. C. 11.5 %



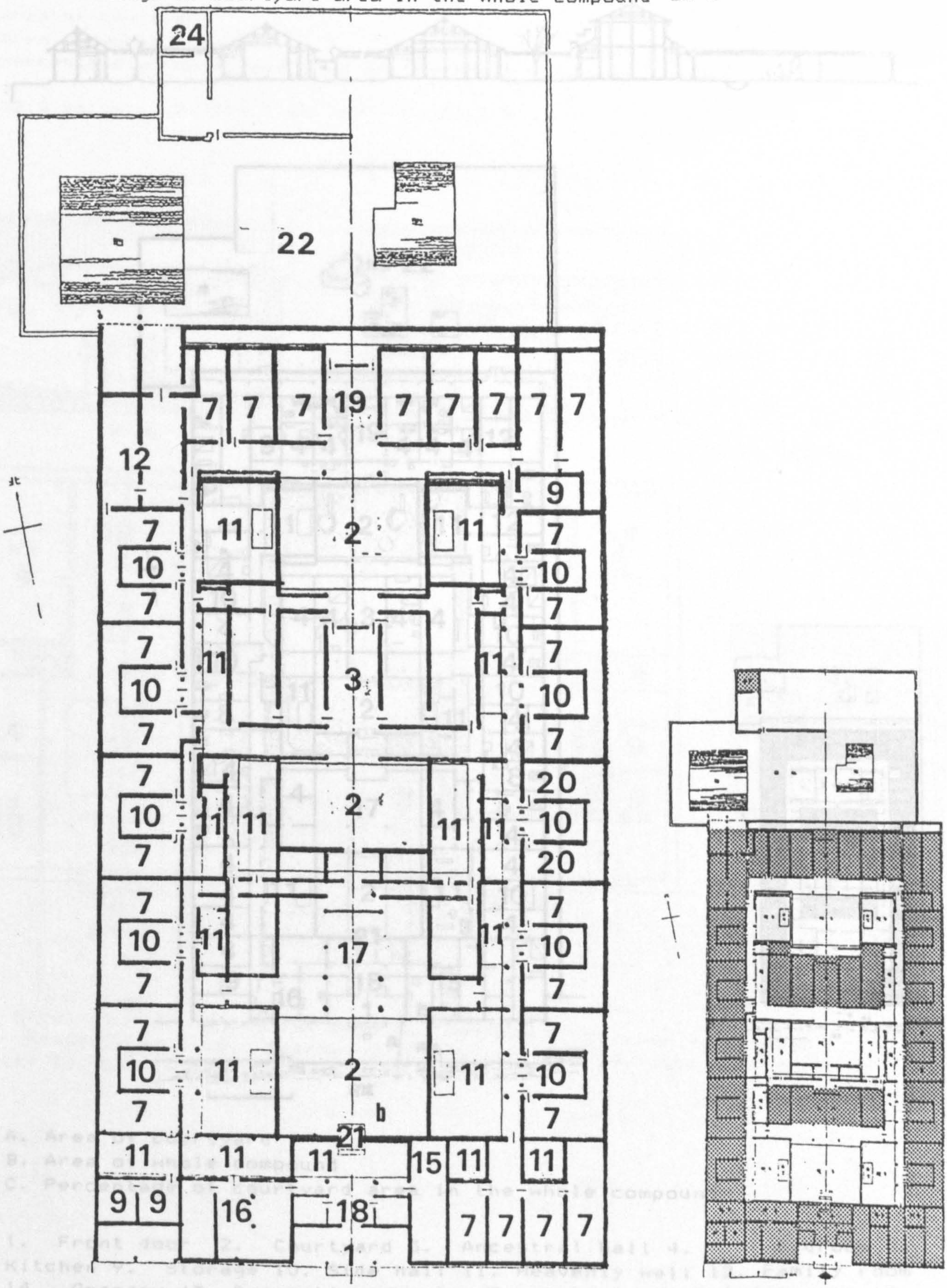


A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in the whole compound

1. Front door 2. Courtyard 3. Ancestral hall 6. Bedroom 8. Kitchen 9. Storage 10. Side hall 11. Heavenly well 12. Family room 14. Granary 15. Servant's room 16. Guest room 17. Sitting room 18. Door hall 19. Back hall

Figure 1-1-32 House 18 in Chekiang province
(from Liu Tun-Chen, 1957, p 85)

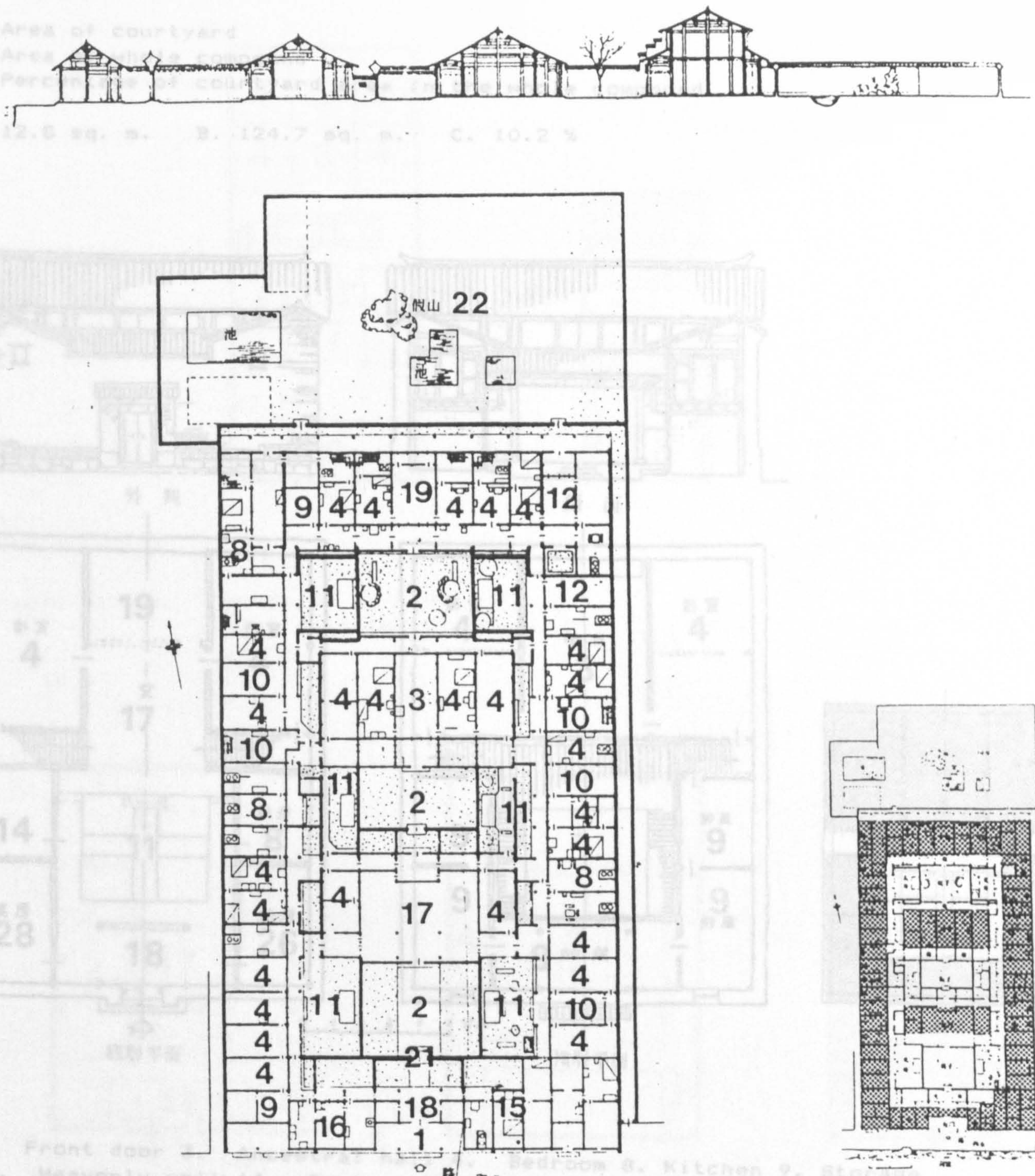
A. Area of courtyard 702. sq. m.
B. Area of whole compound 3037 sq. m.
C. Percentage of courtyard area in the whole compound 23 %



1. Front door 2. Courtyard 3. Ancestral hall 7. Bedroom 8. Kitchen 9. Storage 10. Side hall 11. Heavenly well 12. Family room 14. Granary 15. Servant's room 16. Guest room 17. Sitting room 18. Door hall 19. Back hall 20. Study room 21. Second door hall 22. Rear yard 23. Firewood room 24. Toilet

Figure 1-1-33 House 19 in Chekiang province
(Centre for Chinese Architectural Technology, 1984, p 113)

A. 700 sq. m. B. 3286 sq. m. C. 21.3 %



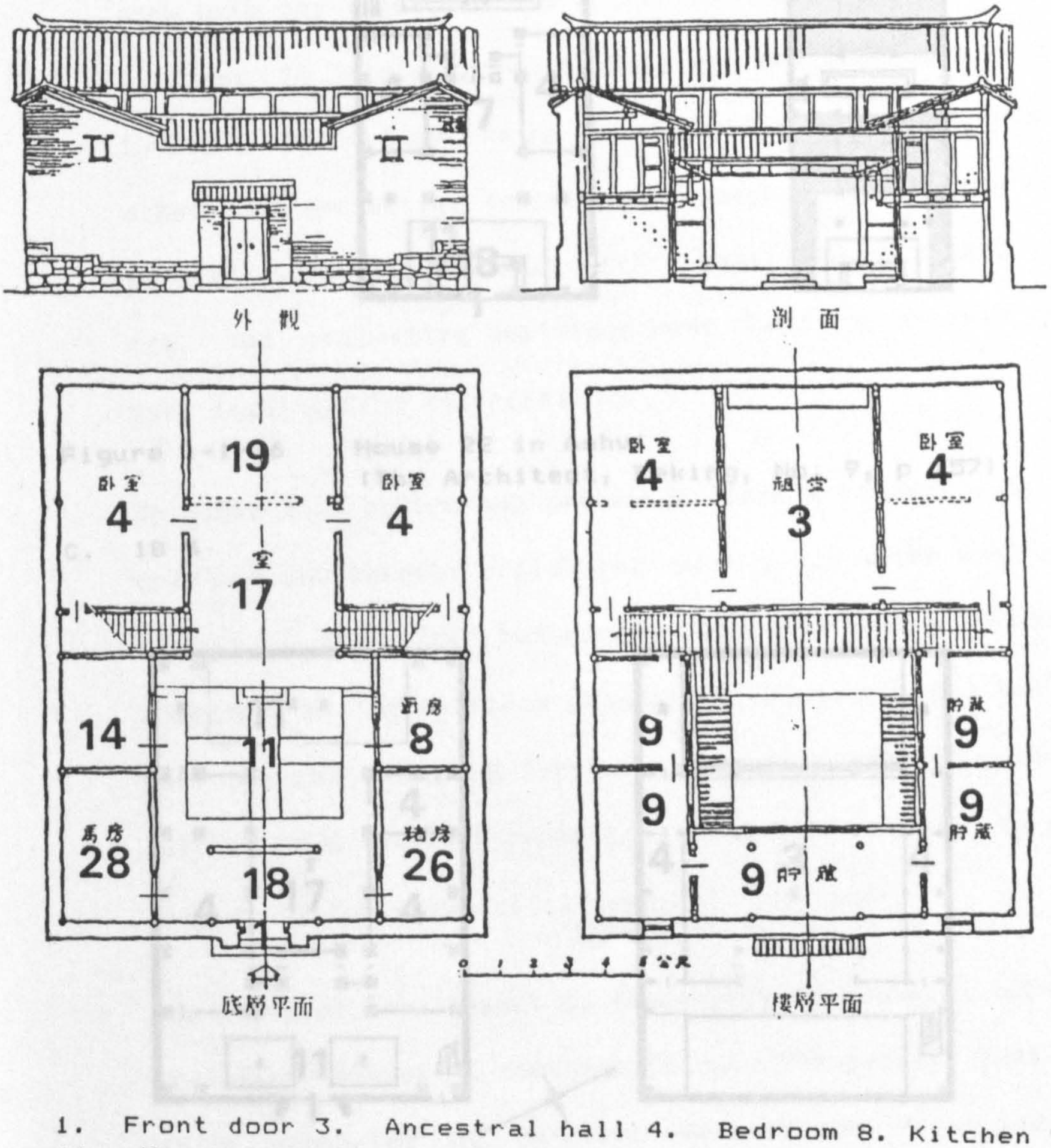
A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in the whole compound

1. Front door 2. Courtyard 3. Ancestral hall 4. Bedroom 8. Kitchen 9. Storage 10. Side hall 11. Heavenly well 12. Family room 14. Granary 15. Servant's room 16. Guest room 17. Sitting room 18. Door hall 19. Back hall 20. Study room 21. Second door hall 22. Rear yard

Figure 1-1-34 House 20 in Yünnan province
(from Liu Tun-Chen, 1957, p 101)

A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in the whole compound

A. 12.8 sq. m. B. 124.7 sq. m. C. 10.2 %



1. Front door 3. Ancestral hall 4. Bedroom 8. Kitchen 9. Storage 11. Heavenly well 14. Granary 17. Sitting room 19. Back hall 26. Pigsty 28. Cattle pen

Figure 1-1-35 House 21 in Anhui province
(The Architect, Peking, No. 9, p 151)

C. 8 %

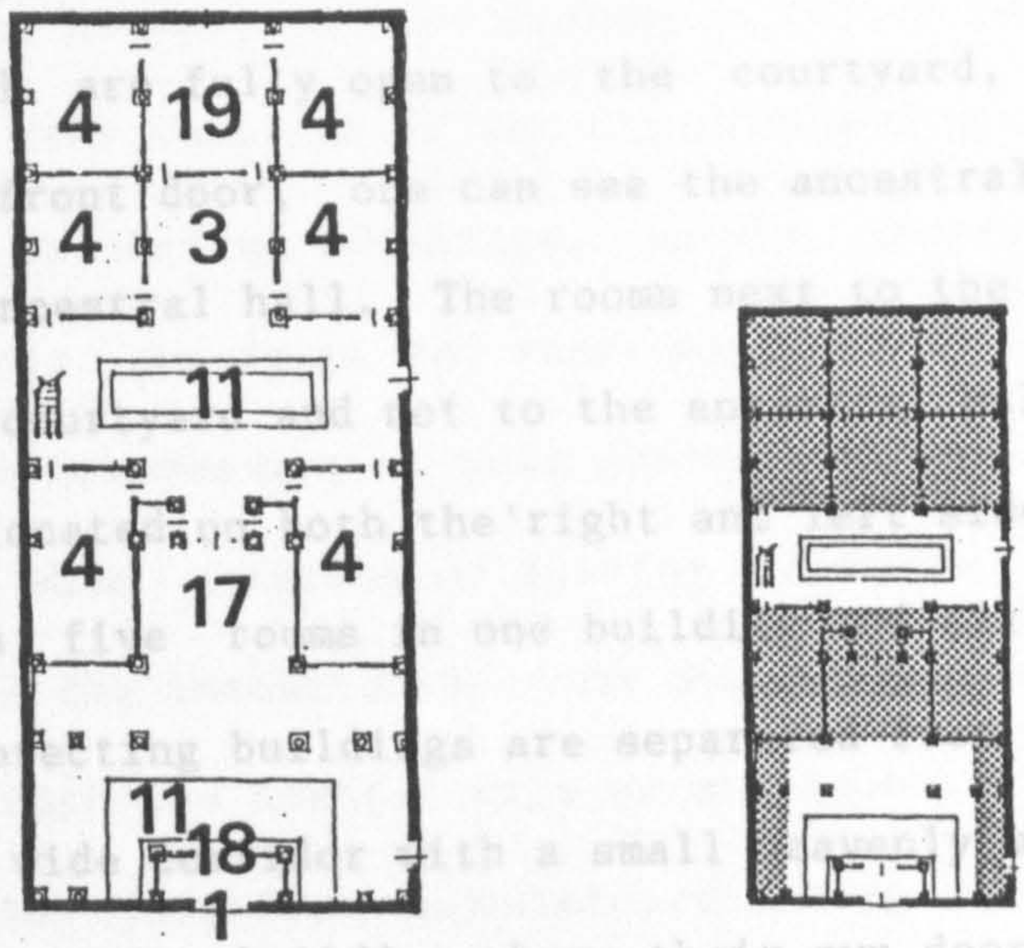
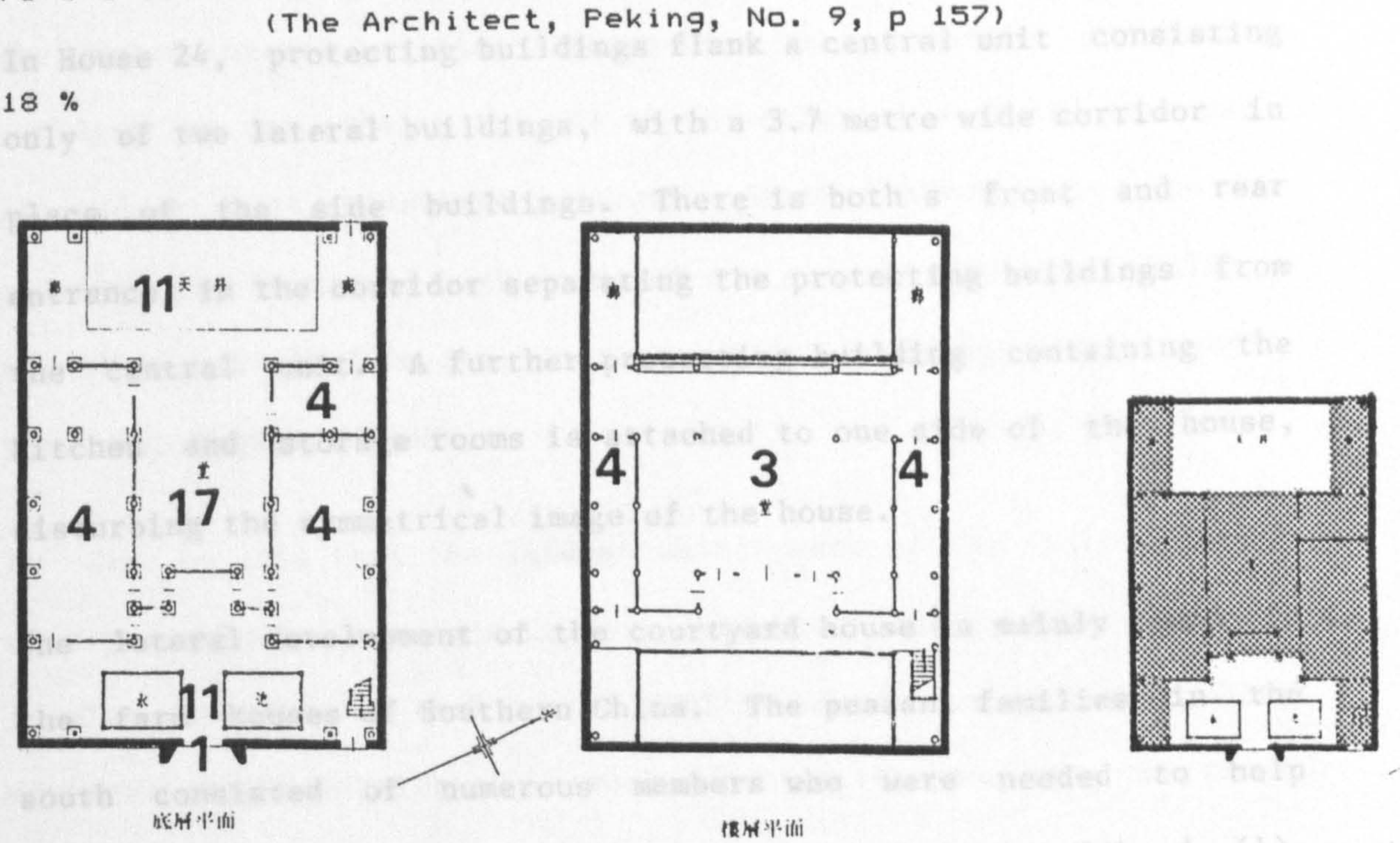


Figure 1-1-36 House 22 in Anhui
(The Architect, Peking, No. 9, p 157)

C. 18 %



C. Percentage of courtyard area in the whole compound

1. Front door 2. Courtyard 3. Ancestral hall 4. Bedroom 8. Kitchen 9. Storage 10. Side hall 11. Heavenly well 12. Family room 14. Granary 15. Servant's room 16. Guest room 17. Sitting room 18. Door hall 19. Back hall

rations occupied the rooms in the protecting buildings.

On the central axis of House 23, we find only the door hall, central courtyard and ancestral hall. Both the ancestral hall and the door hall are fully open to the courtyard, so that upon entering the front door, one can see the ancestral tablets at the rear of the ancestral hall. The rooms next to the ancestral hall open onto the courtyard and not to the ancestral hall. A protecting building is located on both the right and left side of the "four-in-one", with five rooms in one building and six rooms in the other. The protecting buildings are separated from the basic "four-in-one" by a wide corridor with a small heavenly well in the centre. The protecting buildings have their own doorway to the front yard leading from the corridors.

In House 24, protecting buildings flank a central unit consisting only of two lateral buildings, with a 3.7 metre wide corridor in place of the side buildings. There is both a front and rear entrance in the corridor separating the protecting buildings from the central unit. A further protecting building containing the kitchen and storage rooms is attached to one side of the house, disturbing the symmetrical image of the house.

The lateral development of the courtyard house is mainly found in the farm houses of Southern China. The peasant families in the south consisted of numerous members who were needed to help cultivate the large tract of land which was their livelihood (1). The courtyard house was enlarged to adapt to the needs of these big families, but unlike the other courtyard houses for joint families,

---

1) For a detailed description of the Chinese family system (including the nuclear, branch, and joint family) see Part 1, Chapter 2

most of these sheltered only family members and no servants. Thus the rooms were allotted only according to family rank and not social rank so there was no distinct service or family residential area. In these houses, senior members occupied the rooms at the centre, while the families of the children and grandchildren were housed in the protecting buildings. As the protecting buildings each have their own front and rear entrances which lead to the outside, it was unnecessary to pass through the buildings along the central axis when entering or leaving the house and thus more convenient for the inhabitants. On the other hand, it was more difficult to reach the central axis or a side building on the other side of the courtyard from an outer protecting building. In some houses this was possible only by traversing the entire length of the protecting building, while in others a wide passage in front of the main lateral building leading from the outermost protecting building on one side to the one on the other side of the courtyard allowed a more convenient passage. Another possibility was by opening the front and back doors of one room in the side building to allow passage from the outer protecting building to the courtyard. See Figure 1-1-39.

It can be said that the lateral development of the joint family courtyard house was a much more suitable housing form for the farming families as each branch family had its own entrance which was more convenient for their work, but at the same time the close communication among the branch families was sacrificed.

Besides the convenience which this housing form provided for the joint peasant families, another function it performed was that of defense (see Figure 1-1-40), as the centre of the compound which

housed the senior members was surrounded by a high wall in the rear and rows of buildings on the two sides.

Starting from the Ming and lasting through the Ching Dynasty, the farmers of Southern Fukien were often harassed and robbed by various groups of people, ranging from Japanese pirates to bandit groups consisting of impoverished locals and former soldiers (1).

In House 25, balconies on the second floor of the lateral buildings led to the lower roofs of the side and protecting buildings (see Fig. 1-1-41). A low wall rising from the roofs of the side and protecting buildings concealed the male members who defended the house from their position on the roof (2).

Most of the early Chinese settlers who came to Taiwan during the Ching Dynasty originated from two different areas in Fukien, Changchou and Chüanchou. The people from the two areas became rivals, quarreling over arable land. Fighting often broke out among families belonging to the different groups, so that the defensive function of houses bacame a main requirement (3).

In Taiwan, a large yard is commonly found in front of the house compound. Besides serving as a place to dry grain, this yard was also used for the defensive training of family members against raids and unfriendly outsiders and served as a buffer zone during fighting. The whole complex could be surrounded by a moat which

---

1) See Yen Li-Cha, 福建歷史 (History of Fukien), (Taipei: Numa Publ.), 1965
2) See Huang Han-Ming, 福建民居的傳統特色與地方風格 (Traditional Characteristics and Local Style of Houses in Fukien) in (The Architect), No. 19, Peking, June 1984, p 183
3) See Studio of Environmental Planning and Design, National Taiwan University, 板橋林本源園林研究與修復 Study and Restoration of the Lin Family Gardens in Panchiao, (Taipei : National Taiwan University, 1981), p 28

acted as a further defensive barrier.

House 26 is a notable example of the lateral development of the joint family courtyard house in Taiwan (see Figure 1-1-42). This symmetrical compound built in 1823 has a corridor running from in front of the main hall to the outer protective dragons on both sides. The corridor widens in front of the two bedrooms flanking the ancestral hall, so that a shady area outside the rooms can be created for use of the elderly family members. The narrow courtyards between these outer protective dragons and the inner side buildings are called dragon pond and sun well on the right (when seen from the front) and tiger pond and moon well on the left (1). All the side courtyards have doors leading to the outside both in the front and the rear, while the two kitchens in the two protective dragons have their own entrances, so that the whole compound contains seven different entrances.

The addition of protecting buildings brought about the short length and broad width of this joint family housing form. The number of side and protecting buildings (also known in Taiwan as protective dragons) ranges from two to six on each side. To distinguish between these protective dragons, the side building was named "inner protection" (內護), the first protective dragon "outer protection" (外護), then "outer outer protection" (外外護), etc. An example of a house on a large scale can be seen in House 27, which contains 7 protective dragons (see Fig. 1-1-43).

Common characteristics of the laterally developed joint family courtyard houses are as follows:

---

1) See Lee Chien Lang, 台灣建築史 (1600-1945) A History of Taiwan Architecture (1600-1945) (Taipei : Pei-Wu, 1979), p 136

1. In order to avoid direct sunlight from hitting the rooms, the corridors of houses in the south are either wide or were widened in front of certain rooms to create more shady areas.

2. A decrease in the height of the roof can be observed with the increase of distance from the central axis. Thus the roof of the main building containing the ancestral hall is the highest, and that of the outermost protecting building lowest.

3. With only one main lateral building, the number of ceremonial halls was reduced to only one, in which ancestors were worshipped, ceremonies were held and guests were received.

4. A basic symmetry still exists to the left and right of the central axis, although it is sometimes disturbed by the addition of single protecting buildings.

1.1.3.3. The combined longitudinal and lateral courtyard house form

A combination of both the longitudinal and lateral courtyard house form contains at least two chins on the central axis as well as protecting buildings on both sides. Like the lateral development of the courtyard house, this form is mainly found in the southern provinces of Kuangtung, Fukien and Taiwan and was inhabited by joint families of different social classes.

House 28 is a large farmhouse in Taiwan which has two lateral buildings on the central axis and boasts 6 rows of protective dragons (see Fig. 1-1-44). The front and rear of the compound face south east and north west respectively and since most of the rooms of the farmhouse are found in the numerous protective dragons, they face northeast and southwest, ideal orientations for avoiding the sun's direct rays. The special features of this house are the

Figure 1-1-37 House 23 in Fukien
(The Architect, Peking, No. 19, p 183)

A. 52 sq. m. B. 206.9 sq. m. C. 25 %

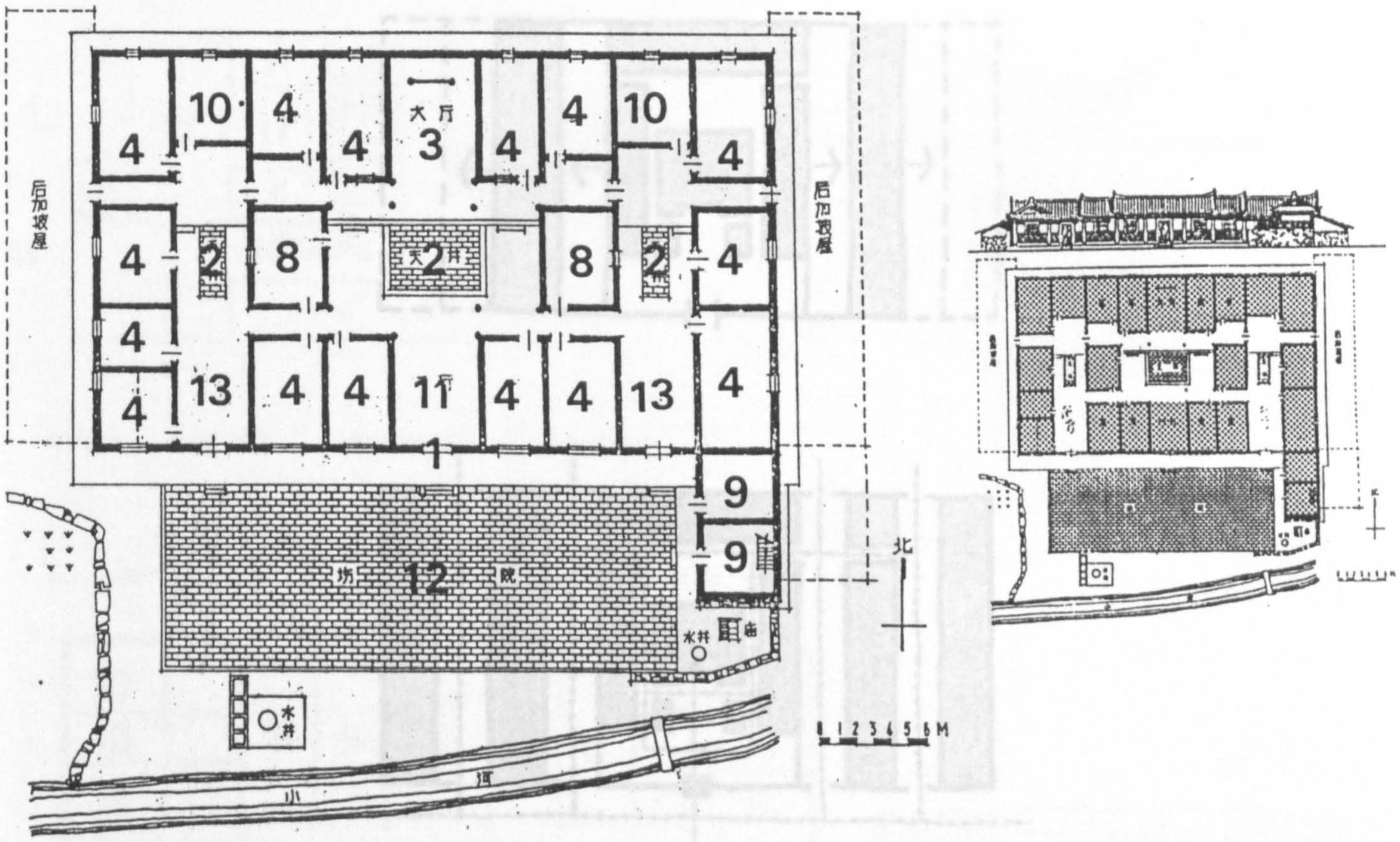
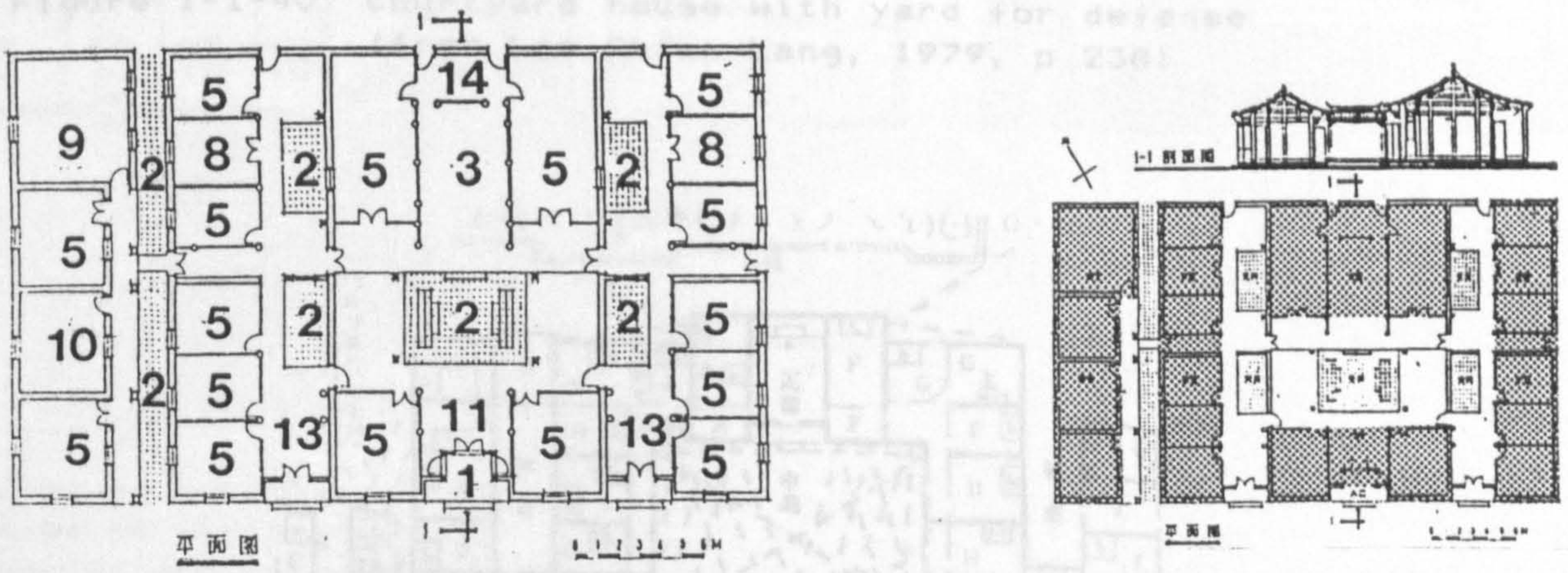


Figure 1-1-38 House 24 in Fukien
(The Architect, Peking, No. 19, p 184)

A. 95.6 sq. m. B. 713.8 sq. m. C. 13.3. %



A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in the whole compound

1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 4.5. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room

Figure 1-1-39 Lateral development of the courtyard house
(from Reed Dillingham & Hua Chang-Lin, 1971, p 128)

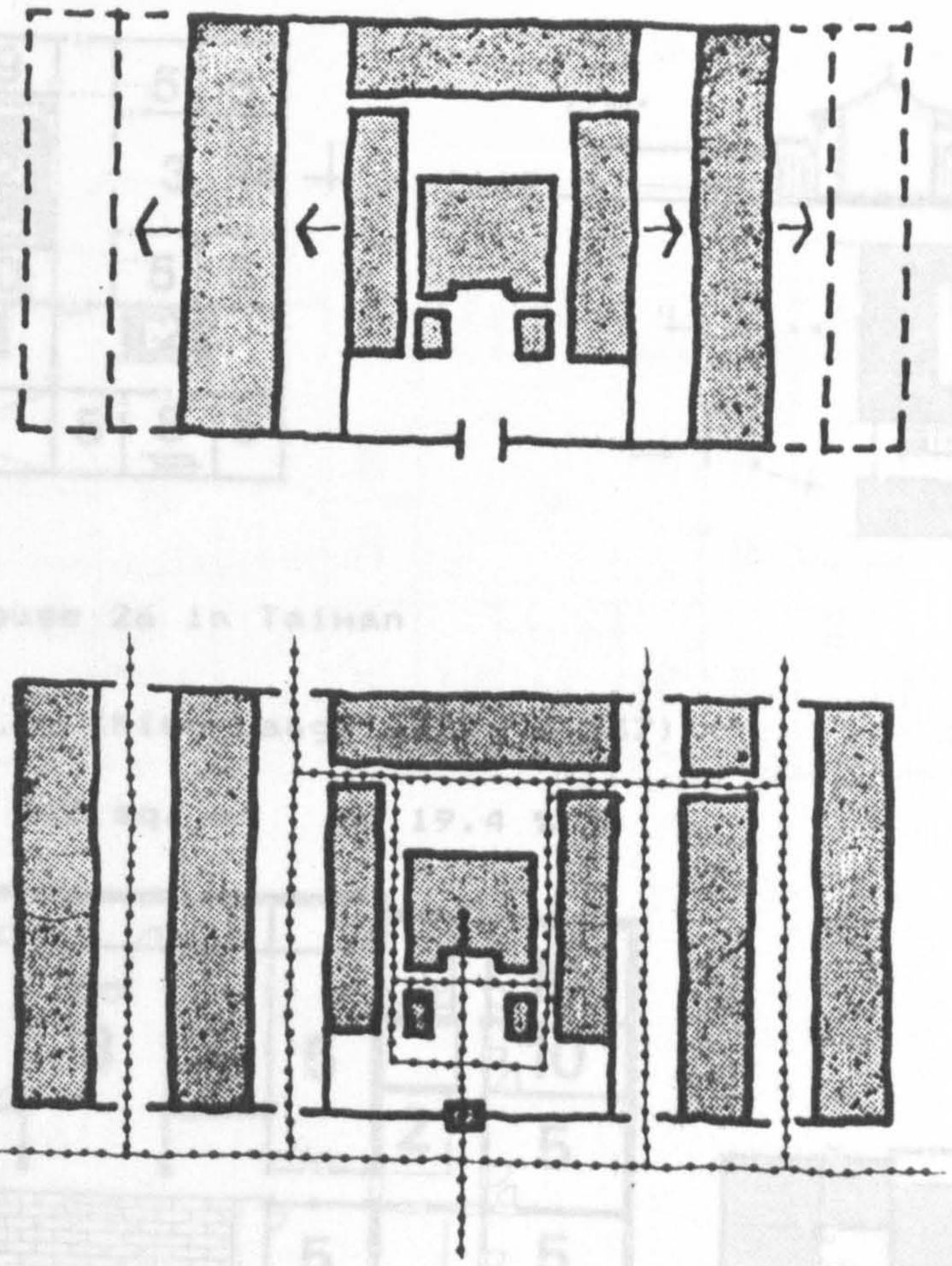


Figure 1-1-40 Courtyard house with yard for defense
(from Lee Chien-Lang, 1979, p 238)

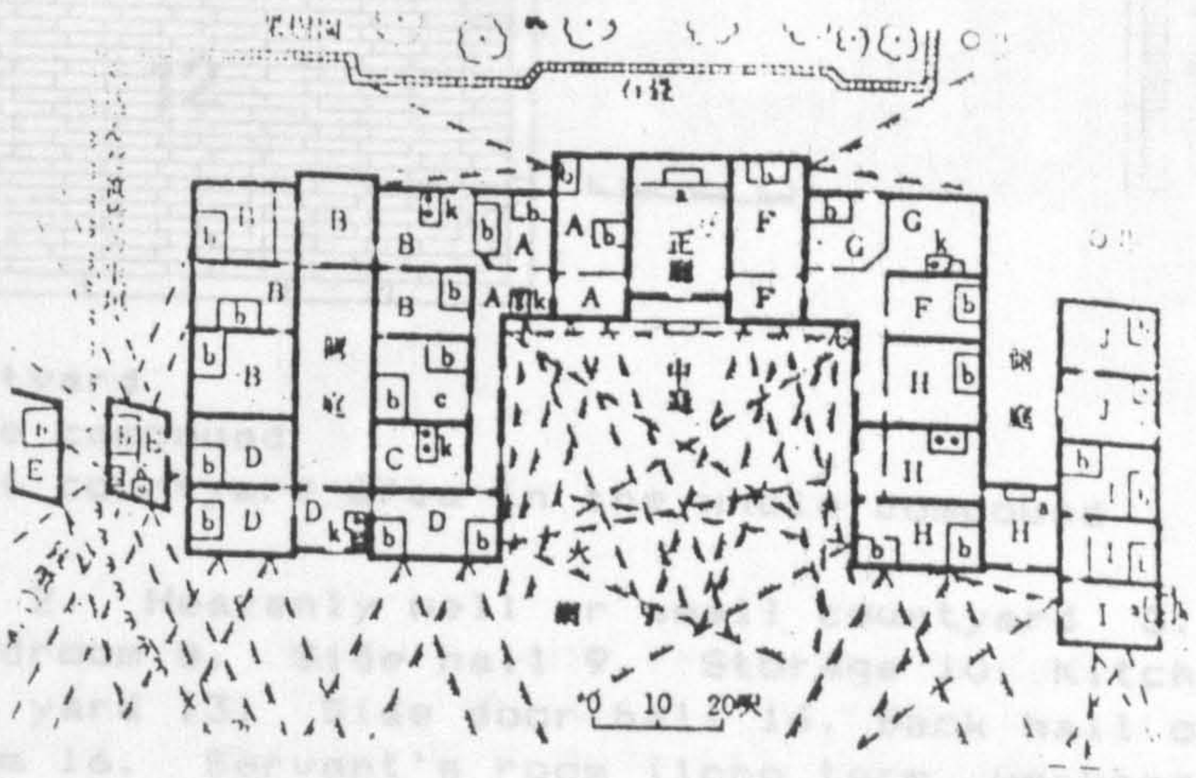


Figure 1-1-41 House 25 in Shantung
(Liu Tun-Chen, 1957, p 100)

C. 29 %

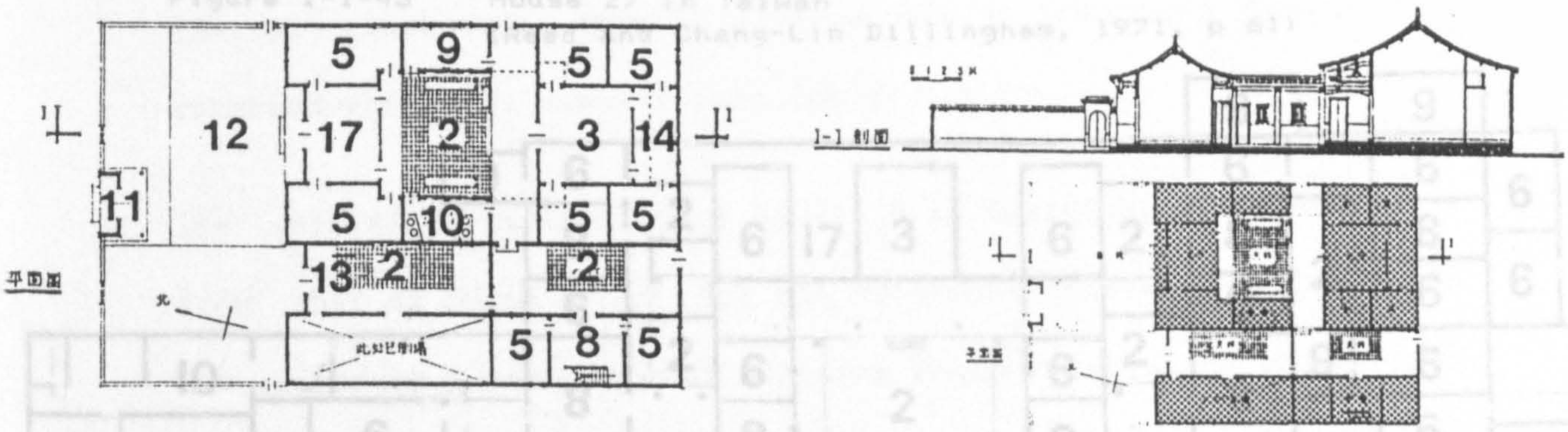
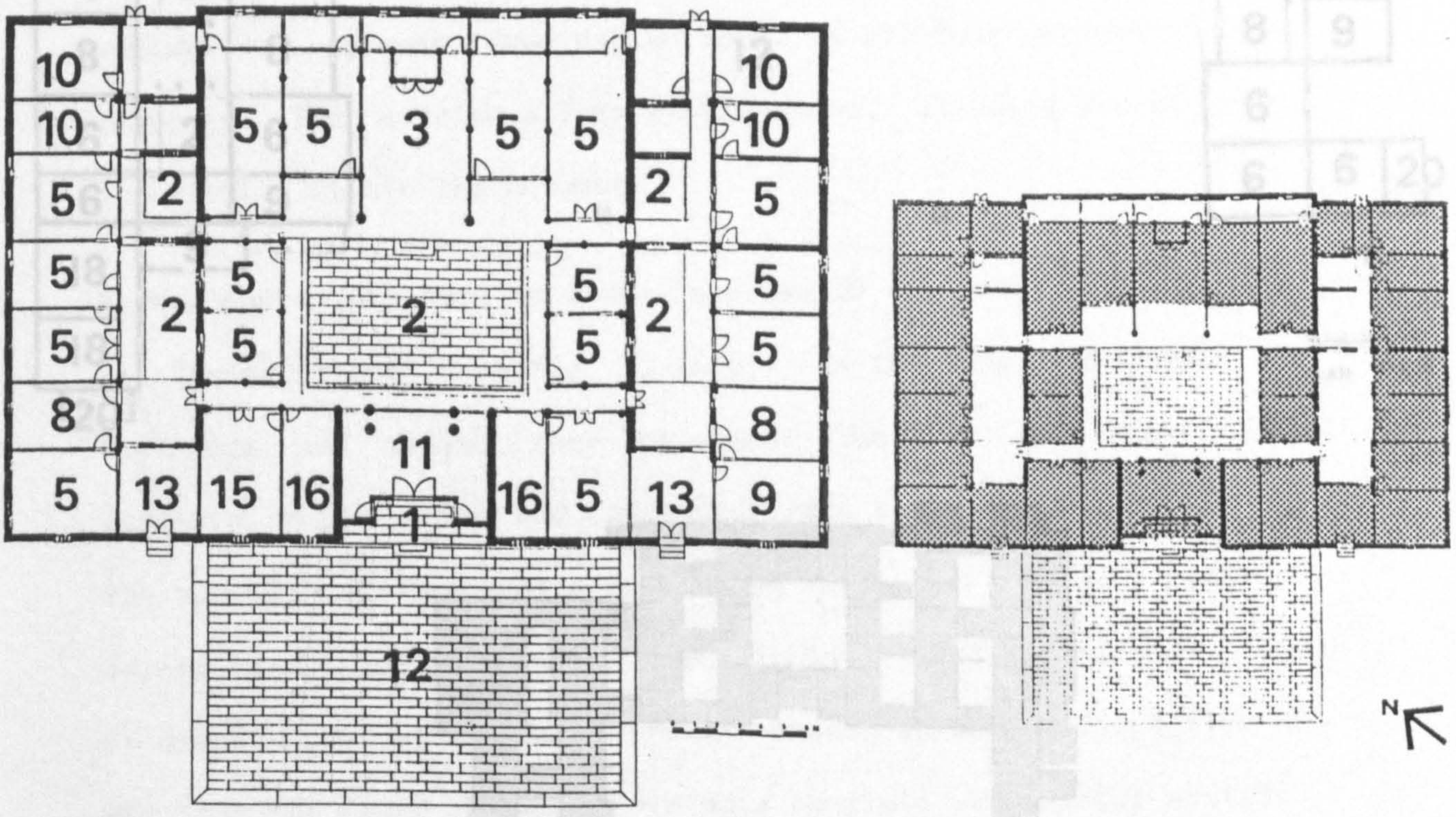


Figure 1-1-42 House 26 in Taiwan

(Lee Chien-Lang, 1979, p 137)

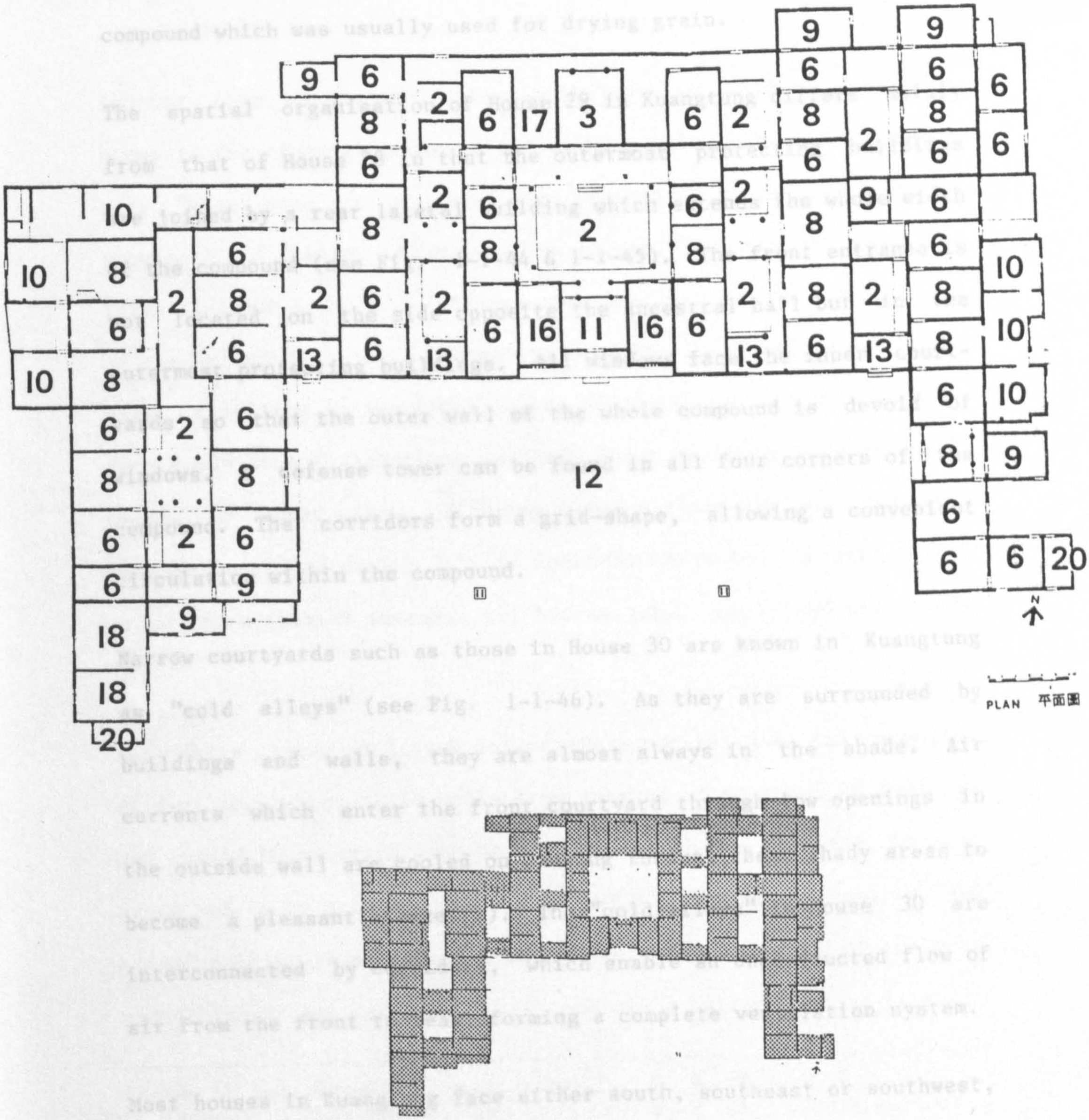
A. 164 sq. m. B. 842 sq. m. C. 19.4 %



A. Area of courtyard
B. Area of whole compound
C. Percentage of courtyard area in the whole compound

1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 5. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room 15. Guest room 16. Servant's room (long term workers, doorman, tailor) 17. Sitting room

Figure 1-1-43 House 27 in Taiwan
(Reed and Chang-Lin Dillingham, 1971, p 61)



1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 6. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room 15. Guest room 16. Servant's room (long term workers, doorman, tailor) 17. Sitting room 18. Room for pounding rice to remove the husk 19. Fish pond 20. Toilet

separate gates for each protective dragon which have unique and different designs to distinguish between the various dwelling partitions. The protective dragons were built much longer than the central courtyard, forming a large yard in front of the central compound which was usually used for drying grain.

The spatial organisation of House 29 in Kuangtung differs mainly from that of House 28 in that the outermost protecting buildings are joined by a rear lateral building which extends the whole width of the compound (see Fig. 1-1-44 & 1-1-45). The front entrance is not located on the side opposite the ancestral hall but in the outermost protecting buildings. All windows face the inner courtyards so that the outer wall of the whole compound is devoid of windows. A defense tower can be found in all four corners of the compound. The corridors form a grid-shape, allowing a convenient circulation within the compound.

Narrow courtyards such as those in House 30 are known in Kuangtung as "cold alleys" (see Fig. 1-1-46). As they are surrounded by buildings and walls, they are almost always in the shade. Air currents which enter the front courtyard through low openings in the outside wall are cooled on passing through these shady areas to become a pleasant breeze (1). The "cold alleys" in House 30 are interconnected by corridors, which enable an unobstructed flow of air from the front to rear, forming a complete ventilation system.

Most houses in Kuangtung face either south, southeast or southwest, the directions of the prevailing winds in the area (2). Another

---

1) See Lu Yuan-Ting, Ma Hsiu-Chih, Chen Chi-Shen, 廣東民居 (Houses of Kuangtung) in 中國建築史論文選輯 (Collected Essays on the History of Chinese Architecture) Vol. 2 (reprinted Taipei:Ming Wen, 1983), pp 61-62
2) ibid, pp 62-64

method of forcing fresh air into the courtyard was to raise the height of each successive lateral building to obstruct a direct flow of air above the house. This was achieved by having a lower front building and a gradual rise in height of the back buildings (see House 30) (1).

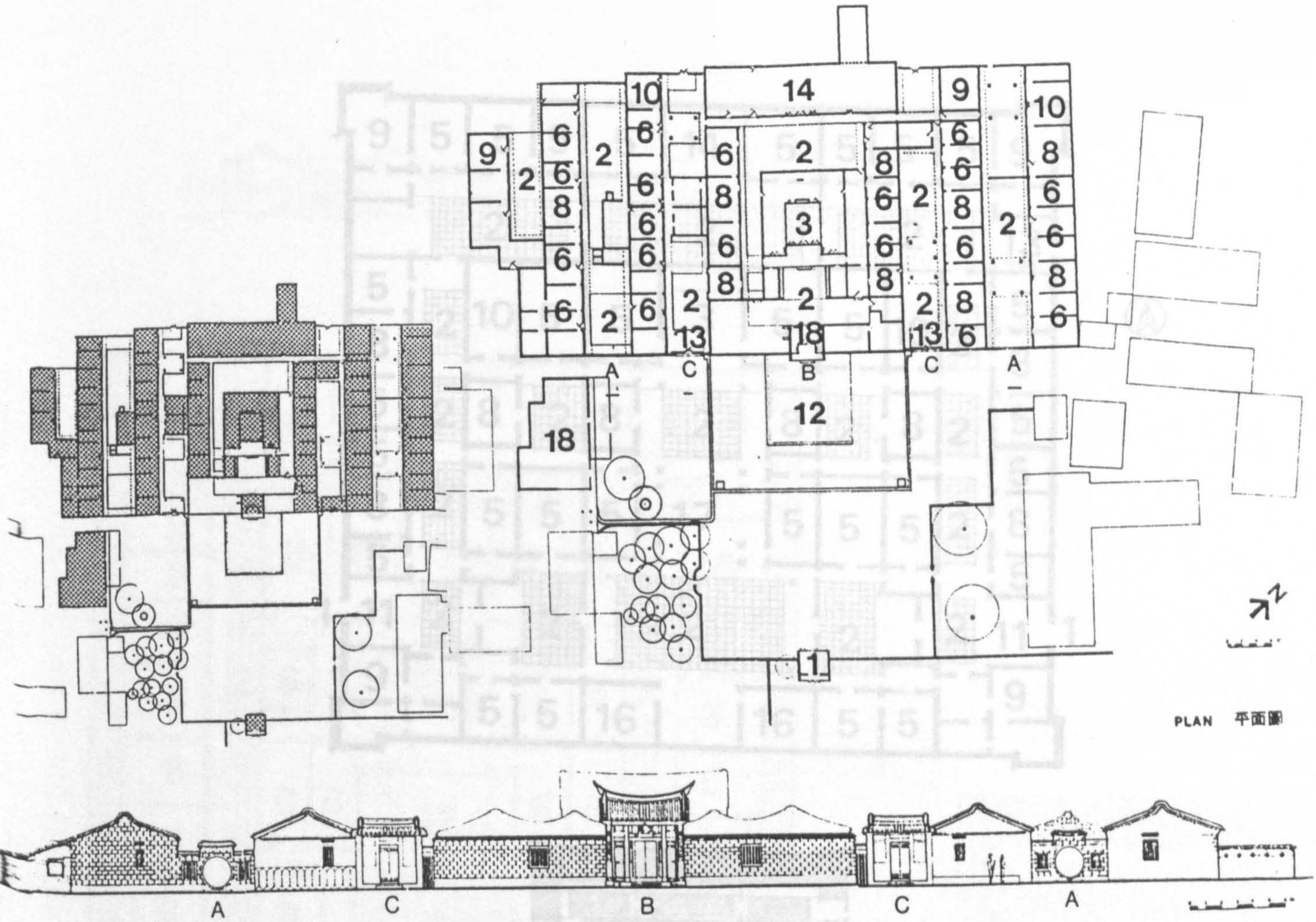
Another form of the combined longitudinal and lateral courtyard house is the communal house of the Hakka people. The Hakka, literally "guest people", migrated from central China to the southern provinces of Fukien, Kuangtung and Kuangsi from the period of the Three Kingdoms (A.D. 222-265) onwards, settling in the region south of the Wuling Mts. (2). Reception from the local people was hostile, resulting in the Hakka custom of living collectively so that they could defend themselves in their joint dwelling from the local people or other clans. Fighting between clans was an important charateristic of social life in Southern China and the wars often arose from trivial causes, but became long, continued and bloody (3).

The Hakka custom of living collectively necessitated the erection of dwellings which could house from several up to about 20 families and could be enlarged when necessary, so that a gigantic housing group had to be created, consisting of usually large, walled and often multistoreyed communal buildings. From the plan of the compound, the houses resemble other combined longitudinal and lateral

---

1) See Lu Yuan-Ting and Wei Yen-Chün, 廣東潮汕民居 (Houses of Chaochou and Shantou) in 建築師 (The Architect), Peking, No. 13, 1982, p 151
2) See Liu Tun-Chen, 中國住宅概說 (General Account of the Chinese House), (Peking : Building and Public Works Publishing House, 1957; reprinted in Taipei : MingWen, 1981), p 35
3) See Maurice Freedman, Lineage Organisation in Southern China, (London : The Athlone Press, 1958) and Chinese Lineage and Society, (London : The Athlone Press, 1966)

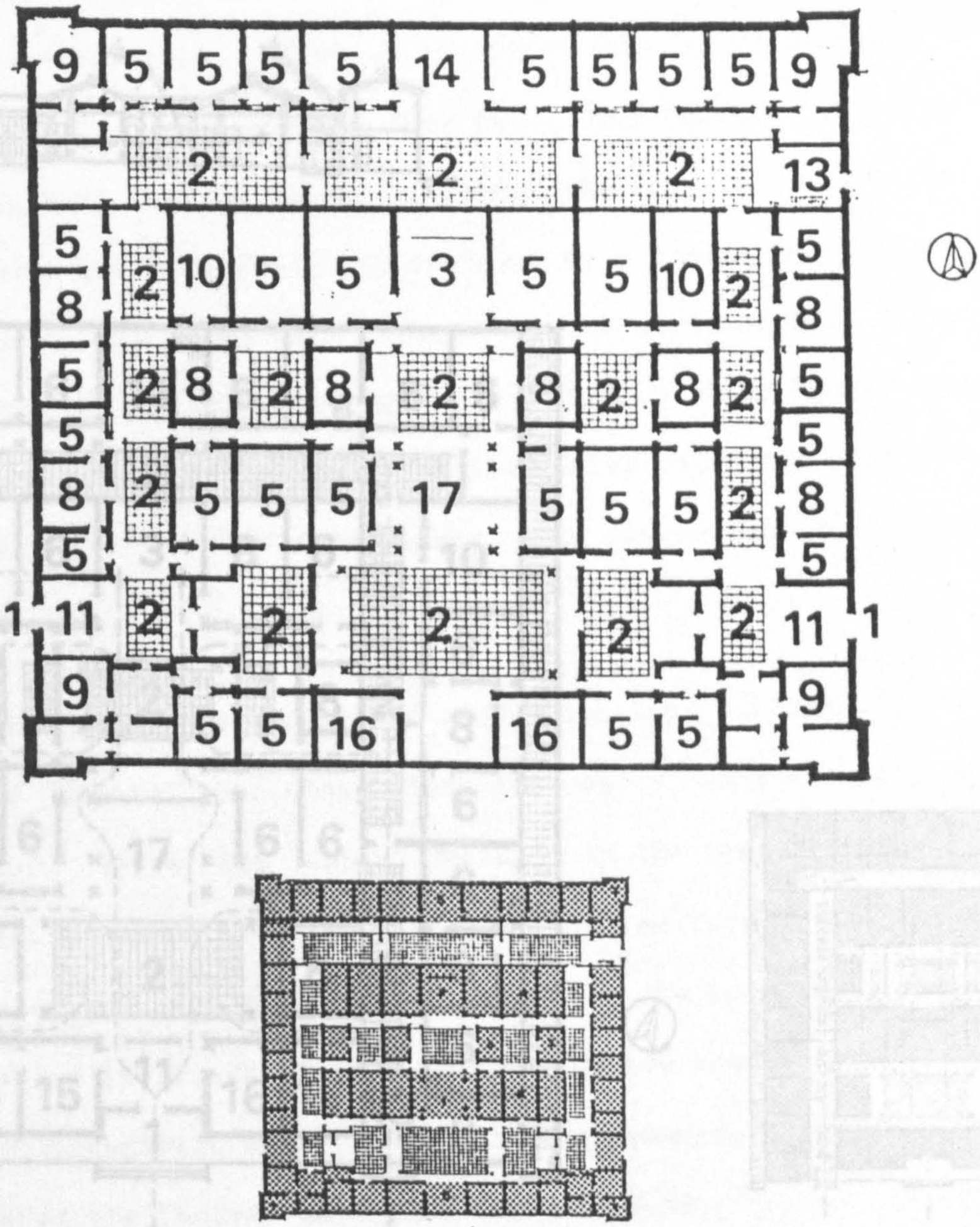
Figure 1-1-44 House 28 in Taiwan
(from Reed Dillingham & Hua Chang-Lin, 1971, p 55 & p 58)



1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 6. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room 15. Guest room 16. Servant's room (long term workers, doorman, tailor) 17. Sitting room 18. Room for pounding rice to remove the husk

Figure 1-1-45 House 29 in Kuangtung
(The Architect, Peking, No. 13, p 146)

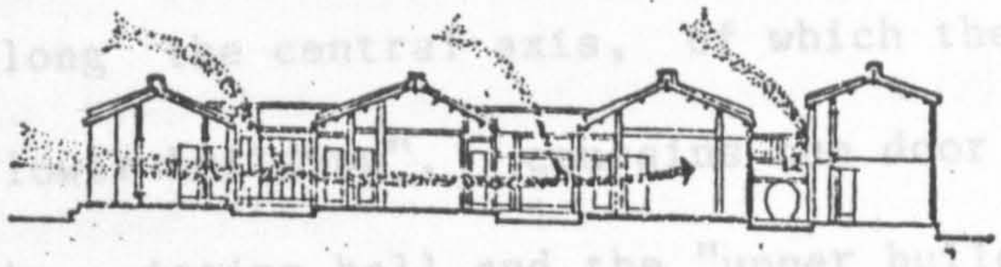
Percentage of courtyard area in the whole compound 18 %

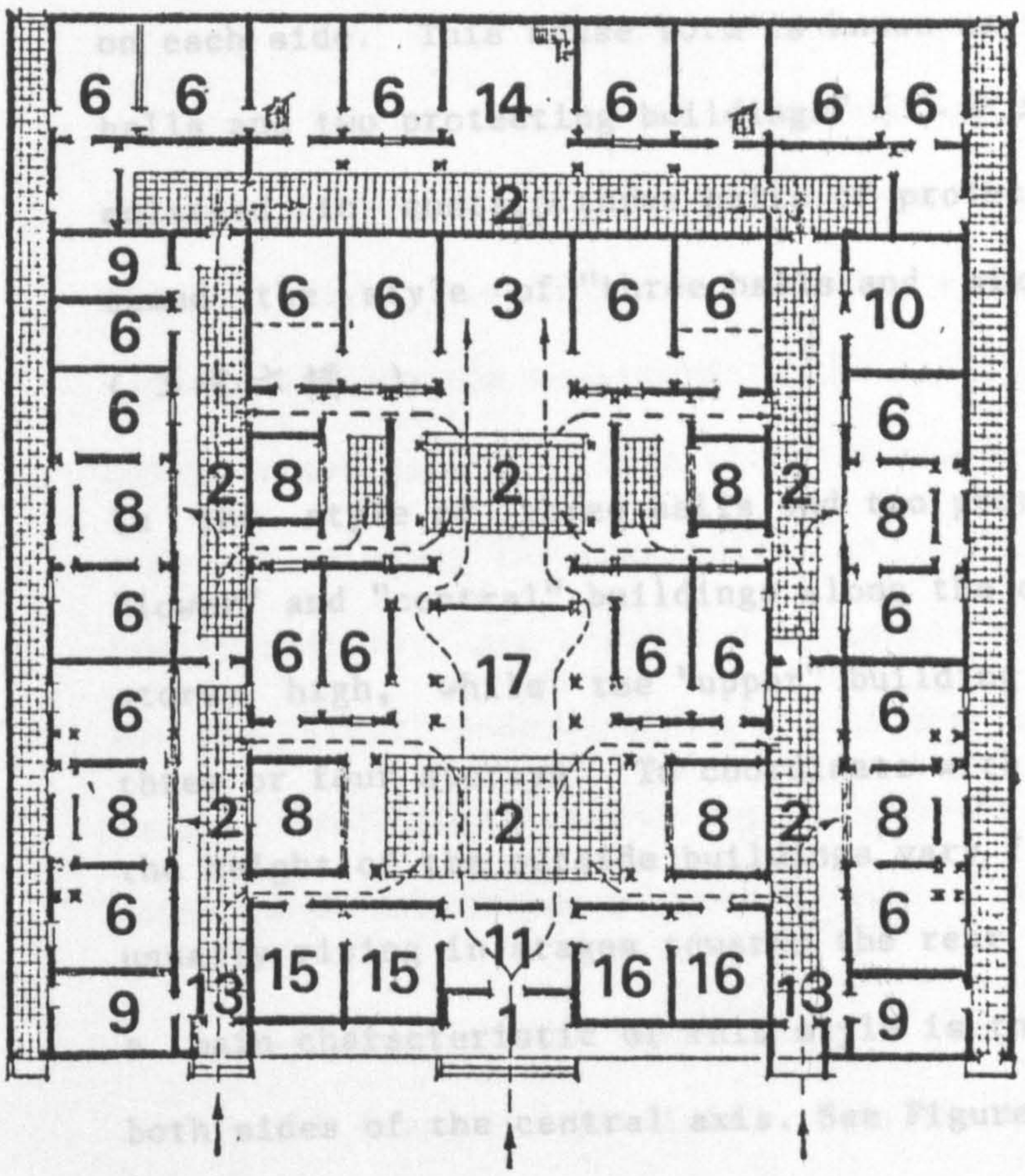


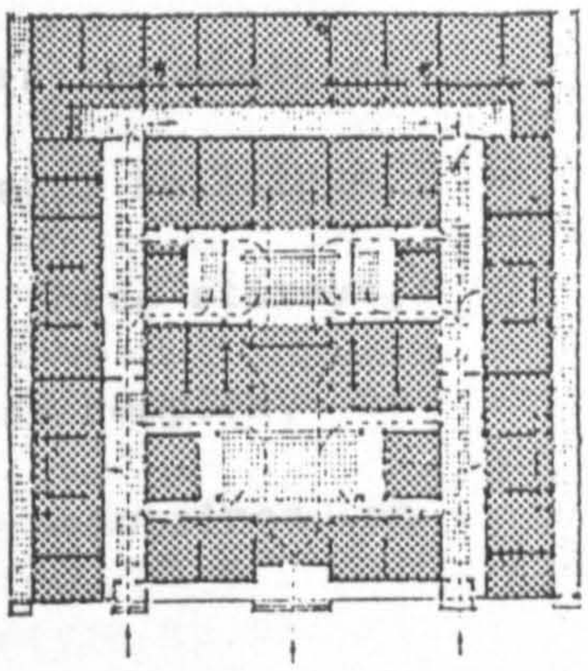
1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 5. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room 15. Guest room 16. Servant's room (long term workers, doorman, tailor) 17. Sitting room

Figure 1-1-46 House 30 in Kuangtung
(The Architect, Peking, No. 13, p 151)

Percentage of courtyard area in the whole compound 26 %







1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 4.5.6. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room 15. Guest room 16. Servant's room (long term workers, doorman, tailor) 17. Sitting room

courtyard houses, but this house style also developed upwards, with the rear buildings consisting of up to four storeys.

The spatial utilisation of this courtyard house form based on the examples found in Yung Ting County in Fukien province will be described here. The basic form of Houses 31 and 32 is three chins along the central axis, of which the first lateral building, the "lower building", contains the door hall, the "central building" the sitting hall and the "upper building" the ancestral hall (see Fig. 1-1-47 & 1-1-48). These are enclosed by a protecting building on each side. This house form is known as the style of the "three halls and two protecting buildings" (三堂二橫). Some houses were enlarged to contain three pairs of protecting buildings and are named the style of "three halls and six protecting buildings" (三堂六橫).

In the style of "three halls and two protecting buildings", the "lower" and "central" buildings along the central axis are only one storey high, while the "upper" building in the rear consist of three or four storeys. To coordinate with these lateral buildings, the height of the outside buildings vary from one to three storeys, usually rising in stages towards the rear of the house complex, as a main characteristic of this style is the symmetry maintained on both sides of the central axis. See Figure 1-1-47

The "three halls and two protecting buildings" style could be enlarged by connecting two protecting buildings in the rear with an arc-shaped building, called the "surrounding building" (圍屋) (see House 32). The largest of these dwellings contain three halls and six outer side buildings and two surrounding buildings.

In House 31, there is a large yard in front of the complex, at the south end of which can be found a semi-circular fish pond. After entering the front gate, one arrives at the door hall, beyond which lies a rectangular courtyard surrounded by corridors. Walls flank the outer side of the left and right corridors. After the courtyard, one arrives at the sitting hall, which was the meeting place for the whole family/ clan and therefore about twice the size of the door hall.

A second courtyard lies beyond the central building, flanked on the left and right side by rooms of the service area. The main or upper building behind the second courtyard is four-storeys high, and housed the rooms of the head of the family and other senior members. Both the central building and the upper building are separated from the courtyard to their front by a narrow corridor which traverses the whole width of the complex, reaching to the side buildings. The side buildings, with the rooms of the other family members, are separated by narrow courtyards and corridors, at the front ends of which are side entrances, similar to the lateral development of the courtyard house. Behind the whole compound is an arc-shaped protective wall.

A special type of the Hakka communal dwelling can be found in east and north Kuangtung province. This round building style is called the "surrounding dragon house" (圍龍屋) (See Figure 1-1-49). The basic complex consists of a circle at the centre, half of which is the courtyard and the other half a meeting hall (or sometimes the ancestral hall). Surrounding this inner circle are one to four outer rings of buildings, their number depending on the number of inhabitants. The outermost ring is usually four storeys high. The

two lower floors of the outermost building are usually devoid of windows, rendering the complex a fort of defense (1). The ground floor of the outermost ring contained the kitchens and work rooms of the whole complex. The second floor was the storage area for grains, and the third and fourth floors housed the members of the clan. The size of the rooms range from 13-15 sq.m., and the number of rooms allotted to each family depended on their need, although families did not necessarily live in rooms which were next to each other (2). The largest round complex in Kao Tou, Yung Ting County, Fukien province, contains over 390 rooms and housed up to 600 people (3). See Figure 1-1-50

Characteristics of these two types of Hakka communal dwellings:

1. The Hakka people had settled in the mountainous regions of Canton and Fukien, and the scarce arable land was preserved by their use of multiple-storeyed communal dwellings.

2. As many of the rectangular communal dwellings were built on hillsides, ditches traversed the whole length of the complex and flowed into the pond in the front. This water could be used for irrigating the fields (4).

3. In these southern areas of frequent typhoons, another function of the four storeyed housing complexes was that of protection - livestock was kept inside the courtyards to lessen the damage. The arc-shaped surrounding wall of the rectangular buildings and the thick tamped wall of the round dwellings lessened the severity of

---

1) See Huang Han-Ming, "Traditional characteristics and local style of houses in Fukien" in Jianzhushi (The Architect), 1984, p 190
2) See Fang Jo-Po, Peng Fei Fei & Ni Hsüeh-Chen, 廣東農村住宅調查 (A Survey of Farmhouses in Kuangtung) in Collected Essays, p 73
3) See Huang Han-Ming, "Traditional characteristics and local style of houses in Fukien", in Jianzhushi (The Architect), 1984, p 191
4) See Fang Jo-Po, Peng Fei Fei & Ni Hsüeh-Chen, "A Survey of Farmhouses in Kuangtung", p 73

mudslides during times of typhoon (1).

4. The main drawback of the round communal dwelling was the poor ventilation in the two windowless lower floors and the lack of light in the centre. Therefore only the highest two floors of the outermost ring could be inhabited by the members.

From the description of the various types of spatial organisation in Chinese courtyard houses, it is evident that variations in the spatial arrangement in different areas of China are mainly based on the practical needs in everyday life. These needs include:

1. Spatial extensions to suit needs of livelihood
2. Adherence to the custom of collective living
3. Preservation of arable land
4. Adaptation to the regional climate
5. Protection against natural calamity and man-induced conflicts.

Courtyard houses for joint families can be categorised into three forms of development. The longitudinal development which emphasised the ceremonial importance of the buildings on the central axis was usually used by the higher ranked or merchants. The lateral development of the courtyard house can mainly be found in farm houses for joint families, as it possessed certain advantages which suited the needs of farmers: The protecting buildings each have their own entrances to facilitate the entry and exit of farm workers; more sleeping rooms were created as there was no need of many lateral halls for ceremonial purposes.

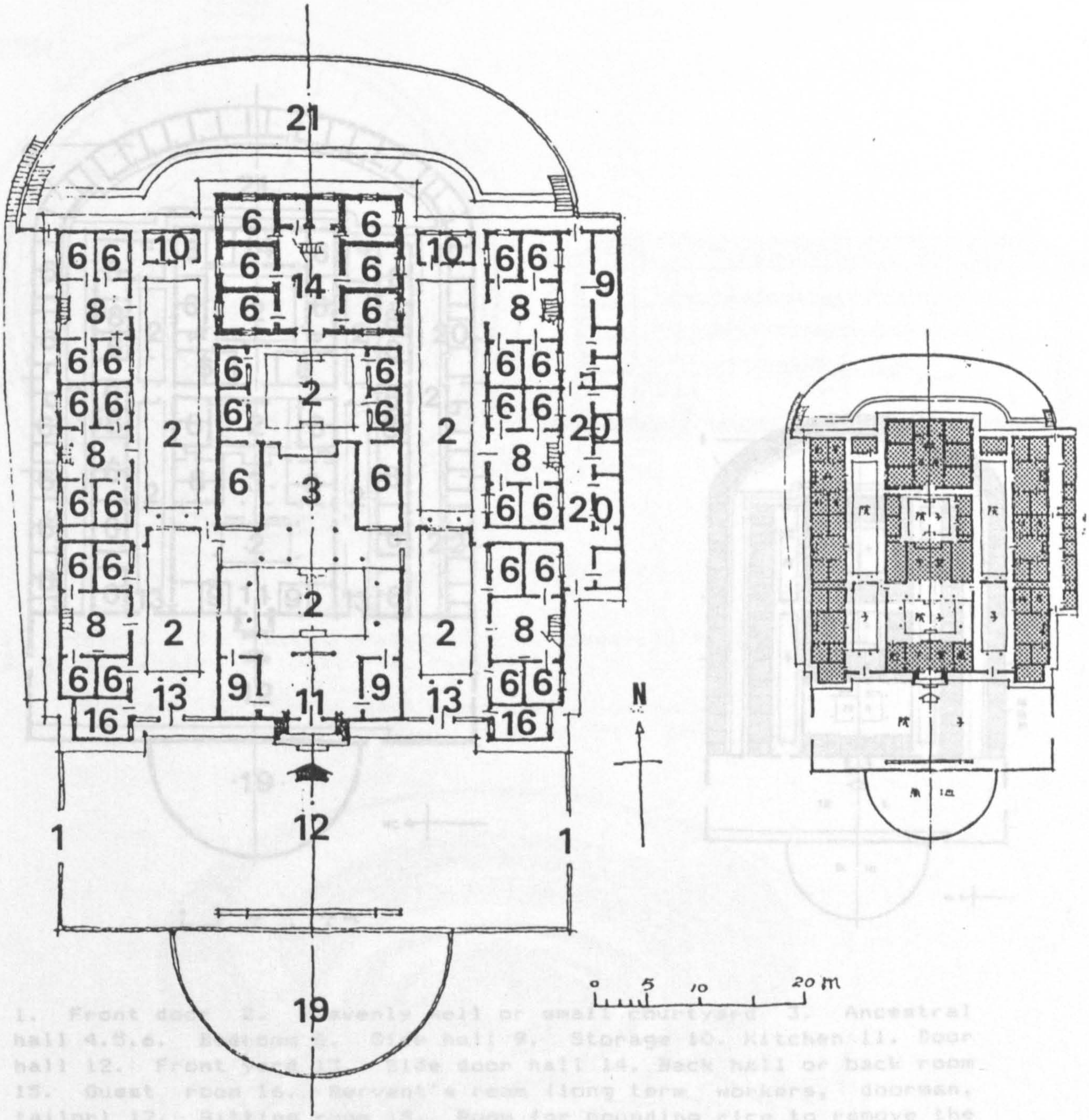
The combination of the longitudinal and lateral courtyard house form was mainly used by people who needed to live collectively.

---

1) See Lu Yuan-Ting, Ma Hsiu-Chih and Cheng Chi-Shen, "Houses of Kuangtung", p 60

Figure 1-1-47 House 31 in Fukien
(Liu Tun-Chen, 1957, p 111)

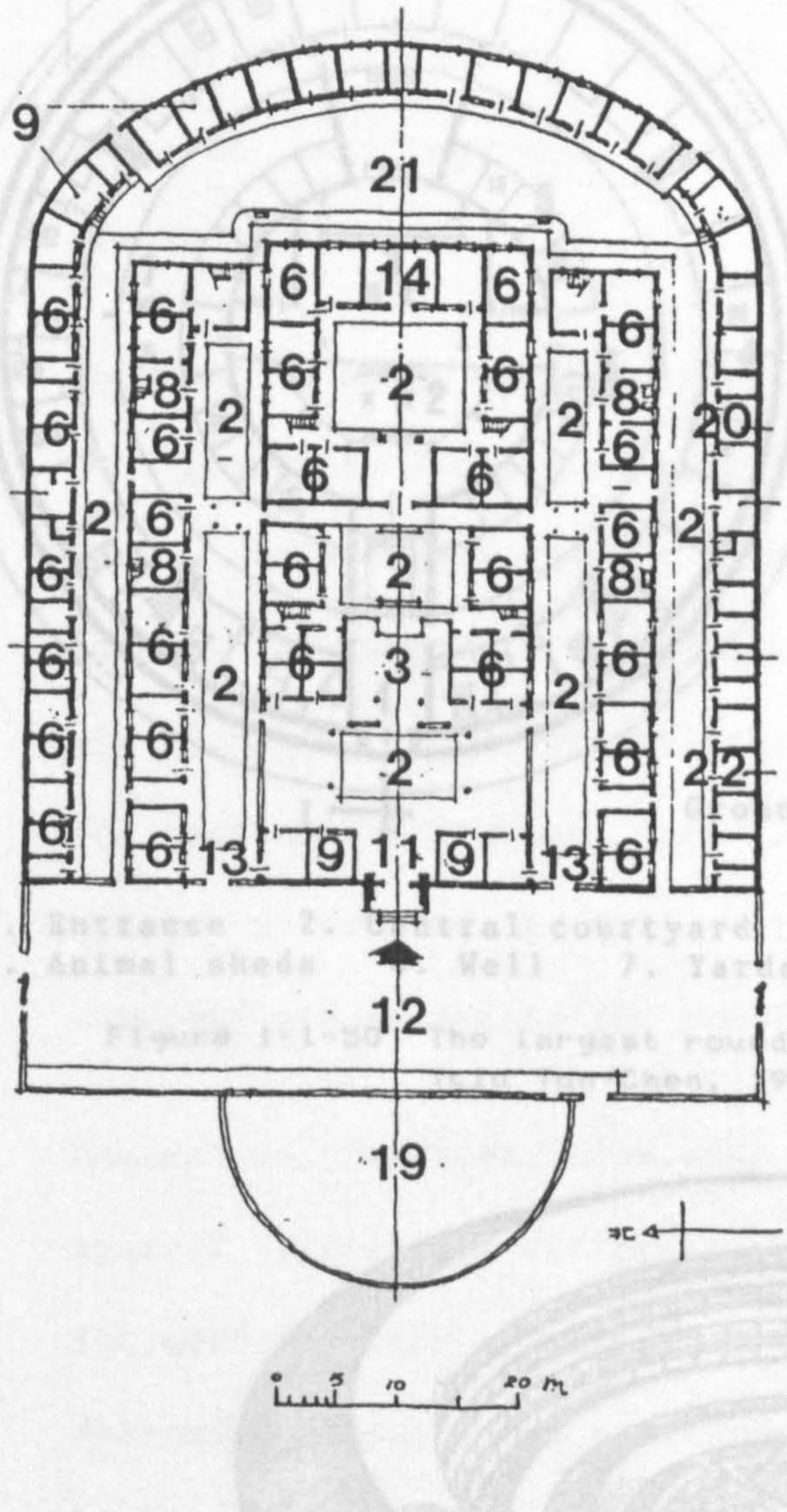
A. Area of courtyard 472 sq. m.
B. Area of whole compound 2496 sq. m.
C. Percentage of courtyard area in the whole compound 19 %

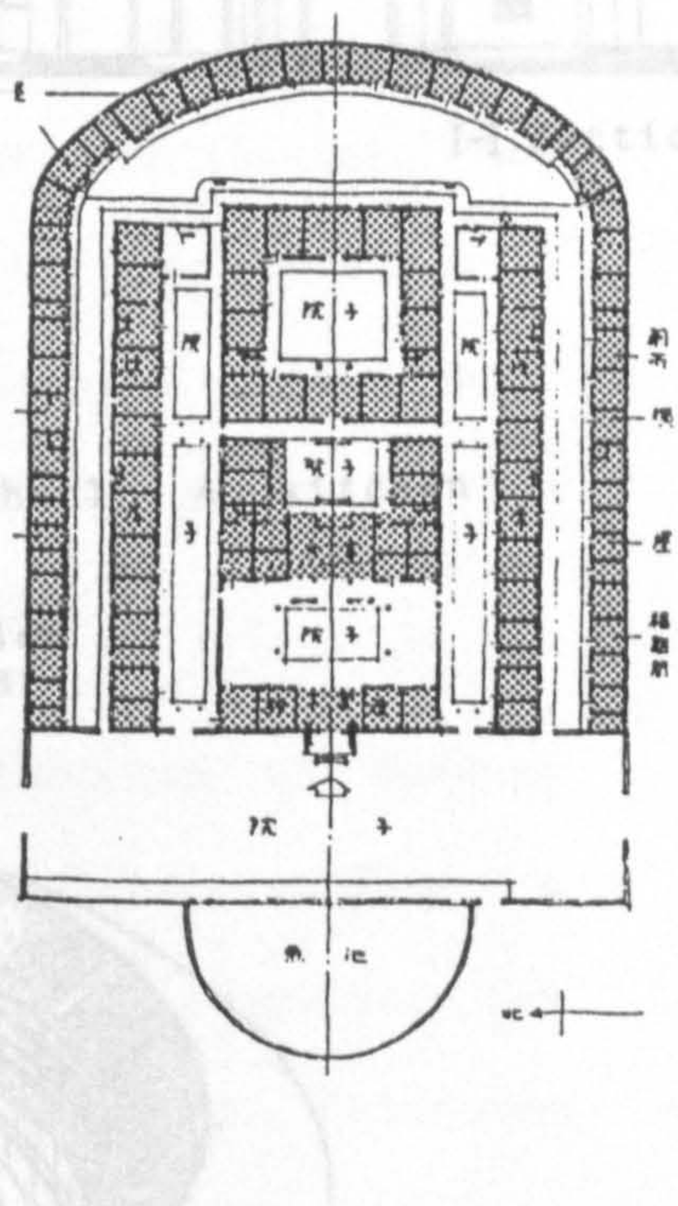


1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 6. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room 15. Guest room 16. Servant's room (long term workers, doorman, tailor) 17. Sitting room 18. Room for pounding rice to remove the husk 19. Fish pond 20. Toilet 21. Rear yard

Figure 1-1-48 House 32 in Fukien
(Liu Tun-Chen, 1957, p 111)

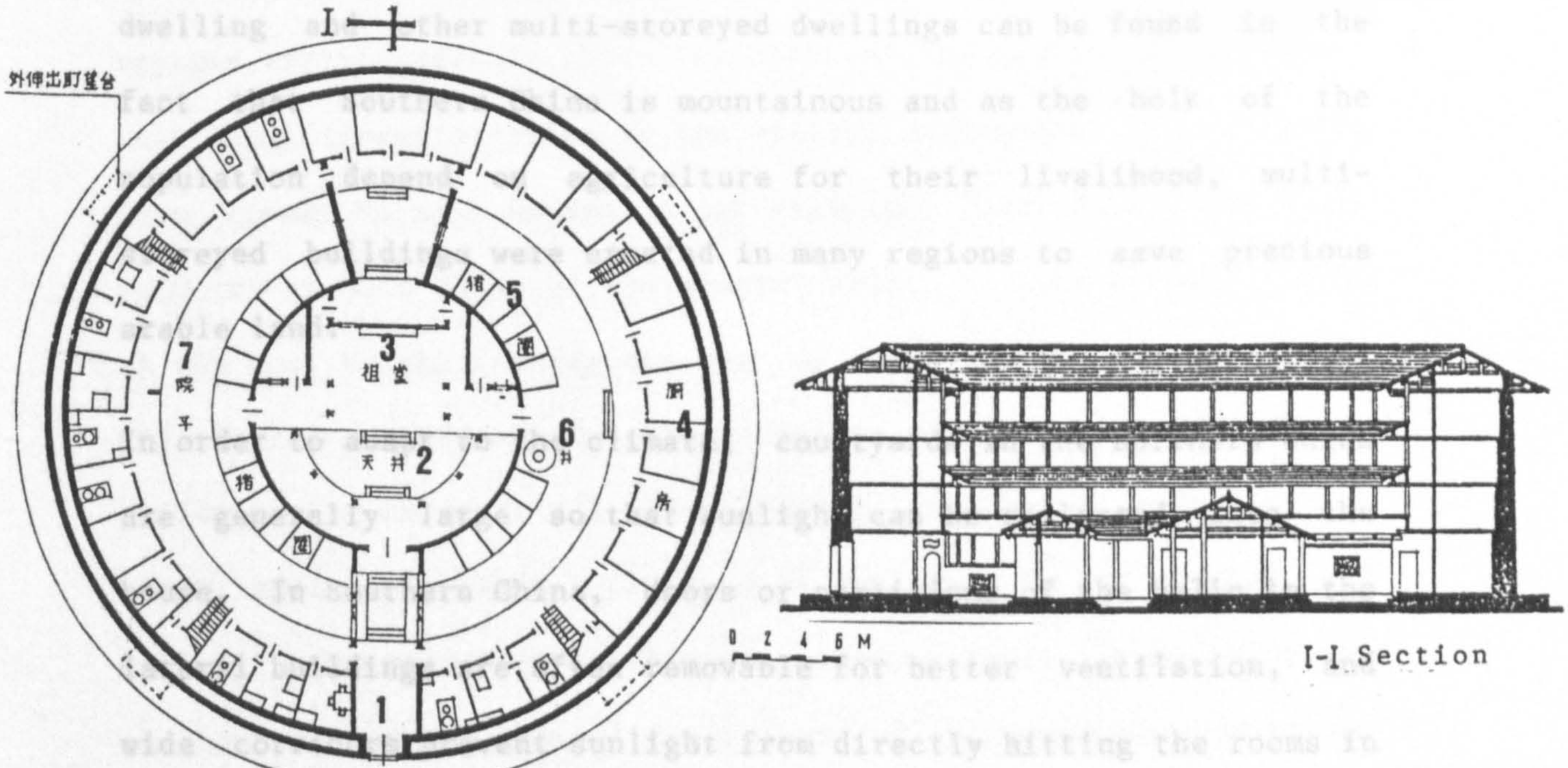
Percentage of courtyard area in whole compound 13 %





1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 4.5.6. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room 15. Guest room 16. Servant's room (long term workers, doorman, tailor) 17. Sitting room 18. Room for pounding rice to remove the husk 19. Fish pond 20. Toilet 21. Rear yard 22. Pigsty and Cattle pen

Figure 1-1-49 Surrounding dragon house
(Hung Han-Ming, 1984, p 190)

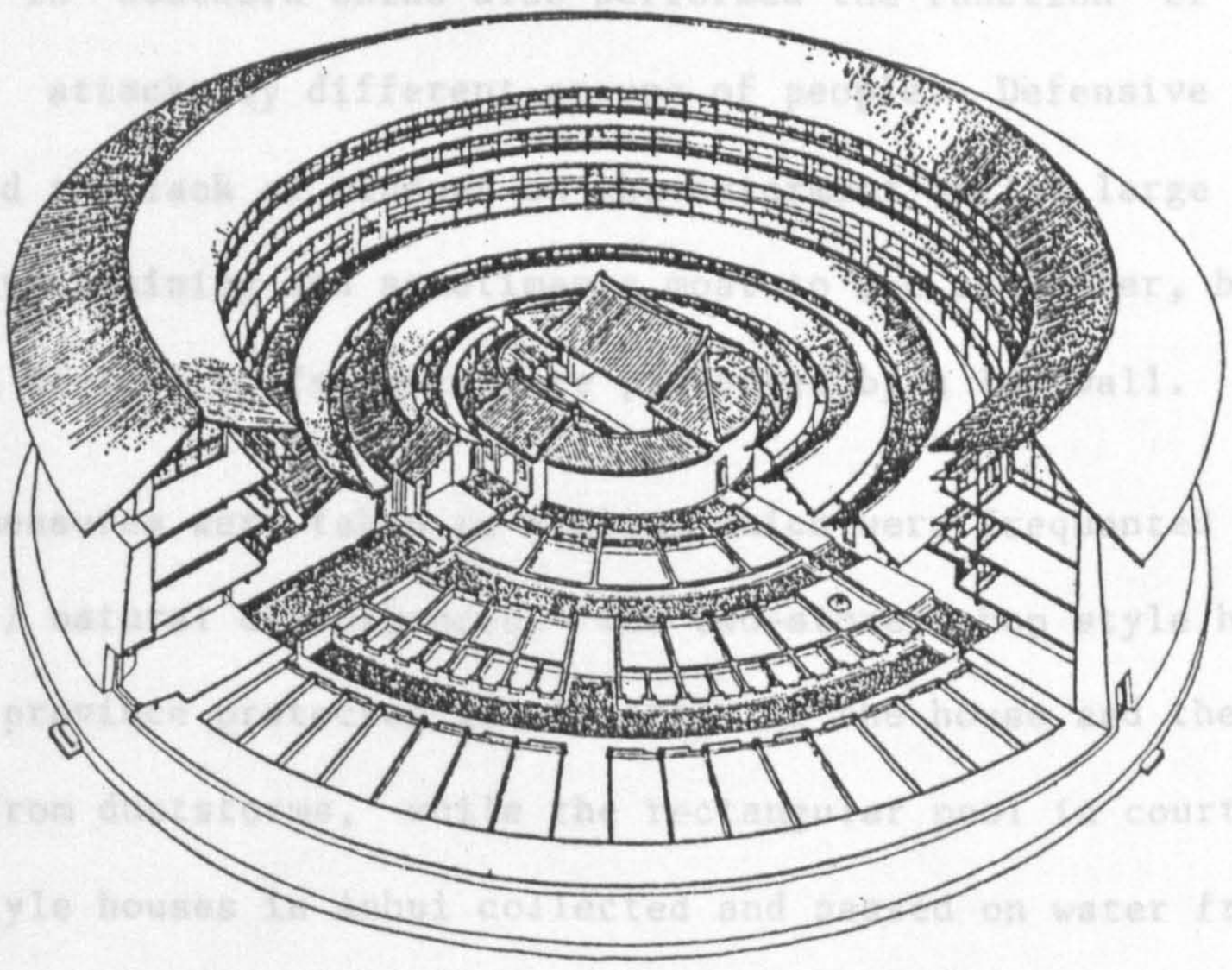


Ground floor plan

I-I Section

1. Entrance 2. Central courtyard 3. Ancestral hall 4. kitchen
5. Animal sheds 6. Well 7. Yards

Figure 1-1-50 The largest round complex in Fukien
(Liu Tun-Chen, 1978, pp 324 & 325)



This included joint families of wealthy landowners or merchants with their innumerous servants and workers, and the Hakka people, who faced hostility from the local people or other clans and preferred to live in a large communal dwelling which could house up to hundreds of people. Another reason for the form of the Hakka dwelling and other multi-storeyed dwellings can be found in the fact that Southern China is mountainous and as the bulk of the population depend on agriculture for their livelihood, multi-storeyed buildings were erected in many regions to save precious arable land.

In order to adapt to the climate, courtyards in the Northern China are generally large so that sunlight can be reflected into the house. In Southern China, doors or partitions of the halls in the lateral buildings are often removable for better ventilation, and wide corridors prevent sunlight from directly hitting the rooms in the residential section. Many houses contain heavenly wells or cold alleys surrounded by walls which can create shady areas in the compound and alleviate the problem of ventilation.

Houses in Southern China also performed the function of defense against attacks by different groups of people. Defensive elements included the lack of windows on the outermost walls, large yard for defensive training and sometimes a moat to act as buffer, balconies leading to flat roofs which were protected by a low wall.

Other measures were taken in regions which were frequented by climatic / natural disturbances. The two-storey chop style houses in Yünnan province protected the interior of the house and the courtyard from duststorms, while the rectangular pool in courtyards of chop style houses in Anhui collected and passed on water from the

frequent thunderstorms to prevent flooding. Hakka houses in mountainous areas of Southern China sometimes contained a surrounding wall which lessened the severity of musdslides during times of typhoon.

These practical needs in everyday life of the Chinese in different regions explain certain characteristics of the spatial arrangement. But other characteristics in the spatial arrangement and building form common to most houses in our examples, such as 1. the basic symmetry to both sides of the central axis, 2. the gradual rising of the roof height towards the rear of the compound and the lowering to the two sides, 3. the enclosure of the compound by either buildings or walls on all sides, and 4. the rules according to which zoning is based, can only be explained by the social and ethical code prevalent in Chinese society. Their strong influence on the form and the spatial arrangement of Chinese courtyard houses will be the theme of Chapter 2.

Chapter 2 The spatial organisation and the form of the Chinese courtyard house based on social factors

Next to the practical functions, the symbolic meaning of each group's spatial organisation is best conceived naturally by the specific users through their own cultural consciousness. On a large scale, the universal concept explains the meaning of the geometrical pattern which nature gives to man. On a small scale, such as the order of dining seats, social etiquette brought into the spatial arrangement, and order can only be achieved by a strict adherence to the principles which make the organisation meaningful.

Edward Hall and Amos Rapoport both introduce the relationship between culture and man's residential space. The former proposed "proxemics" in examining the spaces or territories socially formulated by different groups of people. In his discussion, the socio-cultural aspects are more important than any physical or organic factors (1). But both social and physical factors were considered equally influential by Amos Rapoport in the construction of vernacular houses. The great merit of the latter's cross-cultural examples is that they show the connection not only between people's concern for territory and its symbolic and cultural meaning, but they also link territory to biological dimensions (2). The delimitation of a home territory from nature and the organisation of inner spatial hierarchy are both spatial phenomena which are distinctive to their individual cultures. They include the way boundaries are set, the uses to which the territory is put, the manner in

---

1) See Edward Hall, Silent Language, (New York : Doubleday & Co., Inc., 1959); The Hidden Dimension, (New York : Doubleday & Co., Inc., 1966)
2) See Amos Rapoport, House Form and Culture, (London : Prentice-Hall, Inc., 1969)

which groups cope with outsiders and 'invasions', and the consequences of social order on inner spatial organisation.

My discussion on the spatial organisation based on social factors will focus on three points:

1. How was territory delimited in Chinese traditional society? Emphasis will be placed on the distinction made between public and private territories : the former being accessible to all people but in which users were under public scrutiny and must conduct themselves according to official norms, and the latter - homes - which were more private than the former, and in which the inhabitants were relatively free to behave in their own spatial quarters, but were still under the restraints of ethical principles.
2. Zoning principles based on the social norm will be analysed here, while the regulation of the behaviour of different household members and the restriction of their access to various sections of the house will be examined. The relationship between spatial organisation and family structure will be a main concern.
3. Architectural form which was strongly influenced by the Chinese concept of "order" played a crucial role in shaping the external characteristics of traditional houses. This "order" represented an ideal model manifested in people's behaviour and in their living spaces. The Chinese tried to reflect in their buildings an "ideal model of hierarchy", derived from their code of ethics. How courtyard houses reflected this moral order will be discussed in detail.

1.2.1. Homestead and family in China

Most of the social and ethical norms, upon which many elements in the spatial organisation of courtyard houses are strongly dependent, are derived from the teachings of Confucius. The Chinese believed that only by following the Confucian code of ethics was it possible to preserve family and social order.

In Chinese family residences, areas were zoned for the use by people of different ranks. The main consideration in zoning followed the idea of privacy, derived from the Chinese code of ethics. In order to understand the concept of privacy in Chinese houses, it is necessary to first explain what the "homestead" means to the Chinese mind.

The homestead secured the physical safety of the individual and the first of one of man's basic needs. There was no difference in meaning between the two terms "homestead" and "house" in traditional times in China. The earliest forms of houses were named kung shih (宮室), palaces and rooms, which was later replaced by chu ch'u (居處) or homes. All types of traditional Chinese architecture included an area for dwelling, which was usually located at the rear of a house plane. The front section could be used as a court of justice (in a government office), shop (in commercial buildings), or ceremony hall (in religious temples); even a palace could be divided into two major areas, with the administrative offices of the central government in the front and the residence of the royal household in the back (1). It can be seen from these examples that traditional Chinese buildings were

---

1) See Lee Yün-Ho, 華夏意匠 Cathay's Idea - Design Theory of Chinese Classical Architecture, Taipei: Lung-Tien, 1980, p 83

divided into two completely separate realms, the front being the public area for working, and the rear containing the private and residential areas. The clear delimitation between these two areas with their specific functions was based on the social order reflected in the architecture.

Enclosing a specific area (usually by a high wall) and differentiating between the inhabitants within and the people outside the wall was the main feature of the Chinese homestead. Inside the wall, without the permission of the family, pumping water from the well or picking fruits off trees within the wall was considered an intrusion in people's privacy. Although these objects were not placed under the roof or inside the house, they were located inside the wall which was the boundary of the home territory.

This feeling toward "home territory" has been embedded in the language itself. Two main terms which denote "home territory" are chia-yuan (家園), which originally depicted a "home with a garden", and chia-ting (家庭), a "home with a courtyard". The common first character of these two terms chia (家) is according to its etymology, a roof (宀) with a pig (豕) underneath it. In earlier times, chia was the communal men's house, where the family gathered, worship sacrifices (such as pigs) were offered, and ancestors worshipped. Later on it denoted people's properties, such as their house and domestic animals (1). The term for the homemaker was an jen (安人), a "person of peace", and showed a roof (宀) with a woman (女) underneath it.

These terms show that the traditional attitude of the Chinese

---

1) See Joseph Needham, Science and Civilisation in China, Vol. 4, Part 3, (Cambridge: University Press, 1971), p 120

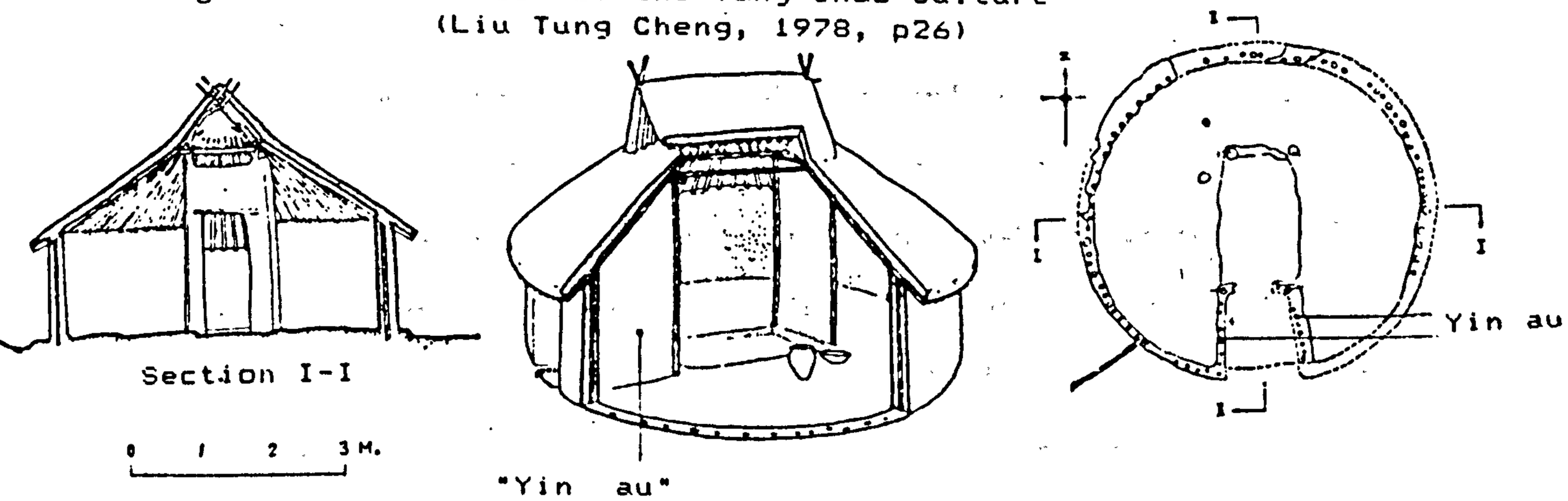
towards their homestead was precise. A complete homestead contained some necessary and crucial elements like garden (園) or court (庭), house (宀), domestic animals (豕), woman (女), etc.

1.2.1.1. Privacy in the Chinese family

The privacy of a Chinese family was already emphasized in the early stages of housing evolution in China, for family life was considered "hidden secrets" (陰私) and not to be exposed in public.

Yin au (陰奧) or secret spaces (see Figure 2-1-3), is the earliest evidence found in the archeological remains of the Yang-Shao culture (ca. 5000-3000 B.C.). In an age where no doors existed to separate the inside from the outside, it was the earliest measure to keep the secrets of private life from outsiders. The space behind the two walls can be regarded as the prototype of later bedrooms in traditional China. Yang Hung-Hsun considered the two walls an economic method of securing privacy in a primitive society with poor construction techniques. The erection of the two panel walls laid the basis for later spatial organisation (1).

Figure 1-2-1 House of the Yang-Shao Culture
(Liu Tung Cheng, 1978, p26)



1) Yang Hung-Hsün, 中國早期建築之發展 "Development of Architecture in Early China", in 建築歷史與理論 Corpus of Architectural History and Theory, 1980, p 112ff

"Privacy" has played a crucial role in the shaping of Chinese residences ever since the earliest known houses were erected. A famous passage in the Li-Chi, the Book of Rites, says: "The high wall in the house was enough to distinguish between the privacy of man and woman" (宮牆之高足以別男女). The visible barrier between the male and female sections in the house was the wall, while a code of ethics Li, instructed the people in their behaviour in keeping their privacy. Ever since their childhood, the Chinese had been taught the principles of Li which, among others, stated: "Do not watch if there is no Li. Do not speak if there is no Li. Do not act if there is no Li." (非禮勿視 非禮勿言 非禮勿動) and "Lack of Li means danger" (1).

Using high walls to surround the home territory was the best and simplest way to prevent the family's privacy from being disturbed by people without Li. Before we go further in our study of privacy in the Chinese house, the significance of the "family" must be discussed in more detail.

1.2.1.2. The significance of the family

Family or home was the main sphere of life to the Chinese, away from which a person became a "wandering son" or "scattered people". Since the family was the most important social group, the family system was also their social system. Lin Yu-Tang wrote: " The family system is the root of Chinese society, from which all Chinese social characteristics derive. The family system and the village system, which is the family raised to a higher exponent, account for all there is to explain in the Chinese social life"

---

1) See "Chou-Li", Li-Chi, Han Dynasty, pp 1-2

(1). Seventy-five years ago, Johnston examined the reasons for the stability and long-lastingness of the social system in China and found an explanation in the fact that the essential units of social and political organisation were the same - it was not the individual but the family (2). Thus public institutions, schools, guilds, and even the government in China sprang from the family, borrowing from it their tenor and complexion, and so that explanations for their particular characteristics can be found in it.

The family system was the negation of individualism itself; the system controlled a man and entirely dominated his behaviour. Personal independence was restrained because of the excessive development of this family system. Fei Hsiao-Tung's explanation of why the individual was not the essential unit of the Chinese social organisation was that in Confucian social and political philosophy, the Chinese saw a direct transition from the family, chia (家), to the state, kuo (國), as successive stages of human organisation, and an individual person was only meant to be a part of the family (3). Without the family structure as the uniting power working internally among family members, the state would not have peace, which was shown in sayings such as: "When the family is orderly, the state will be peaceful" (平家安國) or "Put the family in order and rule the state in peace" (家齊而後國治).

Han Pao-Te relates the Chinese lack of a sense of individuality to the unique characteristics of their living spaces. In the long run,

---

1) Lin Yu-Tang, 吾土吾民 My Country and My People, (Taipei:Wen-Hua), p 167
2) See R.F. Johnston, Lion and Dragon in Northern China, (New York: Dutton, 1910), p 135
3) See Fei Hsiao-Tung, 鄉土中國 (Rural China), (Shanghai:Kuan Cha, 1948), pp 38-44

the flexibility of the size of the living unit (or family), which could consist of a couple as the smallest unit or include all lineal relations, servants and some collateral relations as in a joint family, led to the absence of egoism in family members and the placing of the family as a whole before the individual. Thus the Chinese emphasized the boundary of the whole family as a group, regardless of its size, while the privacy of the individual and his personal territory were of little importance (1)..

This explanation of the Chinese concept of family gives a new perspective for understanding of the unique characteristics of their living environment. A more accurate answer to how the spatial organisation and house form was shaped will be found by delving deeper into their social values, as the concept of territory for oneself, one's family and larger social groups originated from people's ethical sense, which shall be discussed later in this chapter.

The placing of privacy of the family before privacy of oneself can be seen in the examples of Chinese family residences. Many houses can be found in various parts of China where the external walls surrounding the house and courtyard are made of bricks and/or stone, emphasizing the privacy of the family within, while the house itself and all interior furnishings are made of wood, such as wooden wall panels, wooden screens, wooden columns and beams. Strong materials such as stone or brick appear inside the family territory only in the wall below the wooden windows (2).

---

1) See Han Pao-Teh & Hung Wen-Hsiung, 板橋林宅調查研究與修復計劃 "Panchiao Lin Family Compound-The Survey, Study and Restoration" (Taichung: Tunghai University, 1973), p 21
2) See Lee Chien-Lang, 台灣建築史 A History of Taiwan Architecture, pp 25-66

Similar methods are applied in the chuang-k'o dwellings (莊窠) in the eastern part of Chinghai. Thick loess forms the high walls surrounding the house compound, while the buildings themselves are constructed of weak materials such as abele (the white poplar). Very often the houses were blown or burnt down and the inhabitants were forced to live in temporary camps during the reconstruction of the buildings; but the high loess walls always remained and carried on the function of defining the private territory (1). These two examples show the importance the Chinese placed on a strong physical boundary protecting the privacy of their family, while personal privacy did not merit such protection.

Rapoport points out that different attitudes towards territory and privacy among different cultures led to their distinctive forms, as the desire for privacy is mainly shown in the clear division between the private and public domains. "In India (also in Japan), each house is surrounded by a low wall or the house elements are arranged around a central court with a blank wall facing the street." The houses traditionally face inwards, but inside the wall "...there is little concern with privacy and no worry if people can hear one another and the house can be seen right through" (2). This same pattern, also found in the houses of the Chinese, provides a division of domains and effectively separates life within the house from both the street and neighbors.

This separation of domains in providing the privacy in traditional China brought about two major phenomena in the spatial organisation

---

1) See Ts'ui Shu-Chi, 青海東部民居-莊窠 (Houses in Eastern Chinghai) in 中國建築史論文選輯 (Collected Essays on the History of Chinese Architecture), Vol.2, (repr. Taipei: Ming Wen, 1983), p 148
2) Rapoport, House Form and Culture, p 66-68

of the houses. First, a clear transition occured from the chaotic and noisy public domain (street) to the orderly and quiet private domain of the house. Second, the entrance passageways leading into the house were sometimes not direct, but partly blocked, to emphasize the division between public and private space. What could be seen from the street in the house compound were blank walls or screens, also known as "spirit walls", which were placed just inside the front gate to obstruct the passage of evil spirits (see Part 2, Chapter 3) and at the same time block the view through the gateways.

The privacy of a nuclear family could be provided by the above means. In the "joint family", where more members were involved and the relationships between them were more complicated, we find considerable variations in the definition of privacy, in how it is achieved and what the most important considerations are.

The privacy inside the residence of a joint family was attained by following a set of rules for its spatial organisation, which led to the graduated privacy and subdivision of the buildings into separate enclosures. The rules of the spatial organisation were based on the Confucian code of ethics, which deserves more of our attention before we go into our discussion of the spatial organisation for joint families.

1.2.2. Ethics and its function in Chinese Society

Ethics, a system of moral principles, played a great role in Chinese society. In the term Lun-Li (倫理) or ethics, the first character stands for rings on the surface of the water, such as those caused by throwing a stone into it. The second denotes the

principles of behaviour. Lun-Li was conceived by Confucius as the proper conduct of every member of society when communicating with others. These principles were recorded using the same formation as the water rings (See Figure 2-1-5), and laid out the main framework of the social structure in China.

Paul Chao's interpretation of the two levels of social structure helps us understand how this diagram operated in Chinese society. It consisted of an internal system, which covered the developmental cycle of the structure of the family in the domestic sphere, and an external system of domain, where the domestic group is linked with the total social structure in its political, economic, juridicial, religious, ritual and recreational aspects (1).

Each of the rings in the ethical diagram represents a kinship or geographical group. The solid-lined rings denote major social structures (joint family, lineage, village, town and state) which are formed by the smaller kinship or geographical groups. The internal system includes the branches of the family which are agnatically related, and falls within the confines of ring 8 (Tzung-Tsu or Lineage).

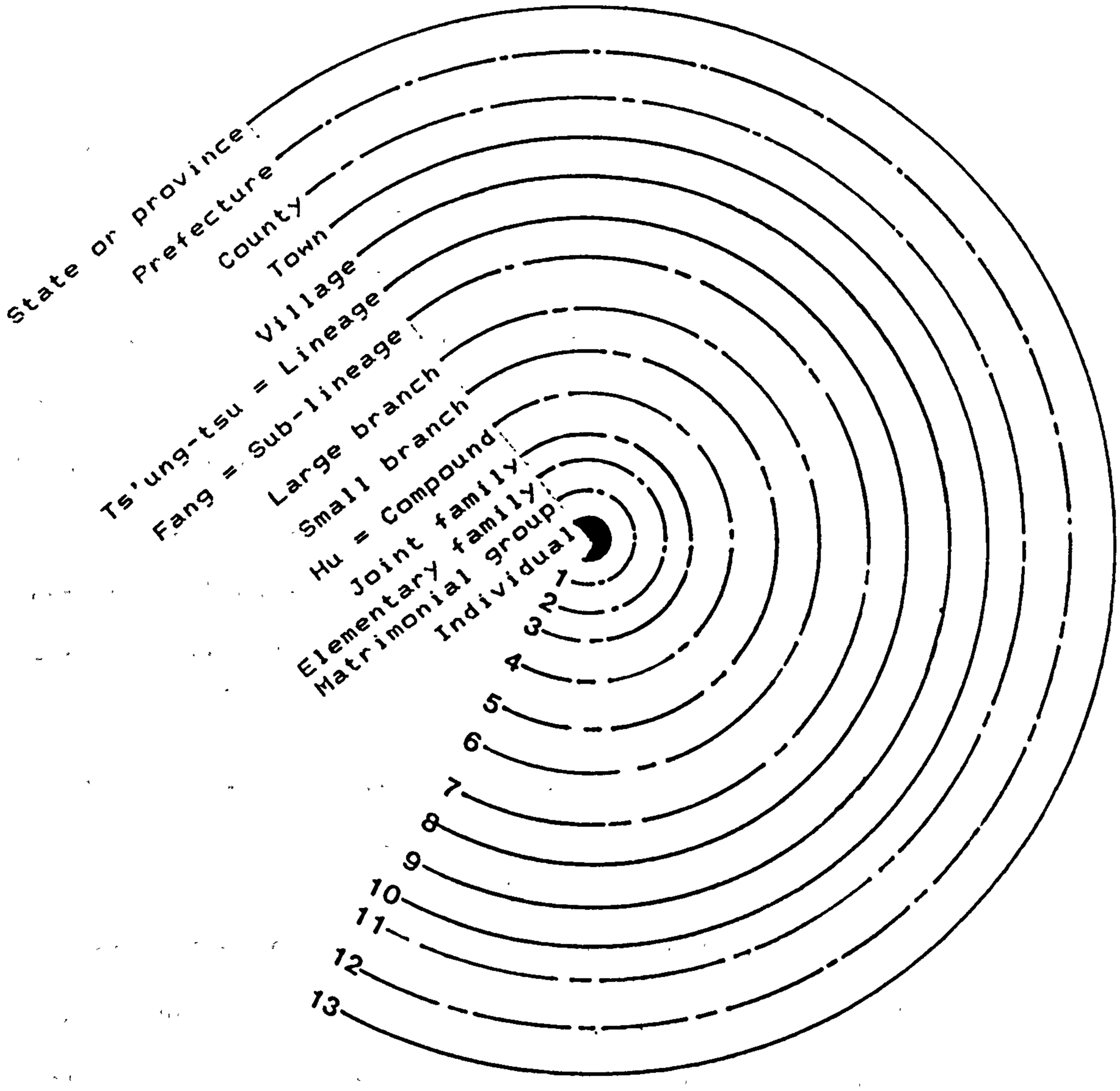
The matrimonial group can become an elementary family, while several elementary families living together in the same house compound form a joint family. By the same token, the aggregation of several joint families can constitute a kinship group leading up to the Tzung Tsu, or the whole lineage.

The centre of each of these groups is "self", or "one's own group". The size of the group is flexible; it starts with "oneself" and can

---

1) Paul Chao, Chinese Kinship, (London : Kegan Paul Int., 1983) p 37

Figure 1-2-2 Chinese ethical diagram
(Based partly on Paul Chao, 1983, p 38)



Ring One - The matrimonial group denotes a married couple without children.

Ring Two - The elementary or nuclear family is procreative; the group embraces the parents and their children.

Ring Three - a joint family or extended family, which may be an economic unit whose members include two or more lineally related kinfolk and share a cooking stove and are communal.1)

---

1) See Paul Chao, Chinese Kinship, pp 37-38

extend through one's family, village, to reach one's country. When certain situations necessitate a recognisable division, the boundary will be set between those in "one's own group" and "outsiders". As can been from the ethical diagram, when the boundary is set at Ring 9, those inside the ring belong to "one's own" village, while those outside the ring are considered "outsiders". If a smaller group is taken, such as Ring 8, those inside the ring are members of "one's own" lineage, while those outside of Ring 8 are now the outsiders. Ring 4 divides all cognate family members and servants living within the same compound from those without. Even though the group size can vary, the Chinese consider their own group to be central, and those outside to be secondary. This perception of "one's own group" is reflected in the spatial arrangement of courtyard houses.

1.2.3. Uniformity in the arrangement of different types of buildings in Chinese architecture

The uniformity of the spatial organisation in Chinese architecture, namely that of a group of rectangular boxes surrounded by a high enclosing wall, has been noted by many historians. Chuta Ito, in his classification of building functions in China, reached the conclusion that no matter what the function of the architecture may be, the forms of their site plans and elevations are all similar and without much variation. Ito's wide-ranging selection of examples includes palaces, Buddhist temples, Taoist temples, Confucius temples, Kuanyu (military god) temples, royal tombs, local government buildings and residential houses. All the plans show a similar character: the most important building is located transversly

on the central axis and in front of it, a courtyard is flanked on the left and right side by symmetrically placed lineal rooms, which are connected by corridors or galleries (1).

In his comparison between the plan of a town and that of a residential compound, William Willetts also notes that "the private residence of the administrative head lies somewhere on the main south-north axis, while residences of lesser persons are arranged along its sides" (2). In other words, all architectural environments in China (on a large scale, a town; on a small scale, a private house) show similar layouts. This unique quality has arrested the attention of many art and architectural historians who have shown much interest in its possible origin.

Chuta Ito thinks that this symmetrical arrangement of space should be attributed for the "preference of symmetrical balance" of the Chinese people, which led to the continuous employment of a balanced plan for thousands of years (3). But if the whole explanation for the consistency in using a certain spatial organisation lay in a people's aesthetic preference for a particular geometrical pattern, then it could easily have changed during this long period of time and allowed other forms to take over. If, on the other hand, this symmetrical pattern symbolised an ideal form that all Chinese aspired to reproduce, then it can explain why the arrangement remained nearly unchanged for over two thousand years.

In his recent work on Chinese architecture and urban planning, Lee

---

1) See Chuta Ito, Peculiarities of Chinese Architecture, (Tokyo : Academy of Oriental Culture, 1941) Chapter 3
2) See William Willetts, Chinese Art, Vol. 2, Section on Architecture, (London : Penguin, 1956)
3) See Chuta Ito, Peculiarities of Chinese Architecture, Chapter 3

Yün-Ho proposes a new view towards explaining why the same characteristics of building plans were so commonly found. According to his description, a "standardised design" and an "all-purpose principle" were followed by most of the house builders in China. They used a plan which was capable of adjusting to any function the building may have. He suggests that the "standardised design" was the main current in the traditional period, and was applied to buildings, vehicles, garments, ritual vessels, etc., where the same principle was strictly followed. Taking garments as an example, he shows that the same principle was suited for all situations through its flexibility. It was not necessary to make clothes of different styles in traditional China for the different social classes: all garments had the same cut, and the difference between them lay in the material, the colour and the embroidered pattern of each piece of clothing.

A certain colour or pattern could only be worn by people from specific social ranks, and people's clothing directly reflected their social status. The same principle applied in architecture. Using the same spatial organisation for different buildings, a house reflected the social rank of its owners through its size, the number and size of its rooms and its decorations (1).

The spatial organisation that was used in all forms of architecture followed a systematic order which took into consideration the social or family rank of its inhabitants. This order defined a chain of commands and duties which held the family as well as society and country together. It can therefore be said that the

---

1) See Lee Yün-Ho, 華夏意匠 Cathay's Idea - Design Theory of Chinese Classical Architecture, Chapter 4

superimposition of a hierarchical social order on their man-made world was a main consideration in Chinese architecture.

1.2.3.1. Confucian views on residences

The uniform character of Chinese architecture can partly be attributed to the social power of "bureaucratic feudalism". The bureaucratic-feudal system was closely connected with the Chinese social order in its various stages through the ages. As we shall discuss more fully later, Confucianism, the essential framework of the bureaucratic-feudal system in China, was widely popularised in the sixth century B.C. As a major system of moral teachings, it was dominant over all other religious thoughts in China, and gave the norms of social behaviour. "Severity" was its main characteristic. Comparing Confucian influences on Chinese architecture with Taoist influences, Needham remarks: "Immanentist, ethical, hierarchical, liturgical, axial, symmetrical - these were the qualities of Confucian archetectonics. Taoist influence was on the side of immanence too, of course, but it tended to softer, less severe formulations, finding architectural expression in beautifully sited buildings and romantic ensembles, developing the garden and the artificial landscape" (1).

Although this is a sweeping generalisation, the statement is true in that it shows the approach to the living environment from different viewpoints. Confucianism dealt with the connection between man and his society, while the emphasis in Taoism was between man and nature. The former gave birth to the code of ethics, and the latter laid the basis for the Chinese view of nature, both of which are

---

1) Joseph Needham, Science and Civilisation in China, Vol 4 Part 3, (Cambridge : Cambridge University Press, 1971) p 69

revealed in Chinese environmental design (1).

An example given by Huang Pao-Yu shows how the code of ethics was related to a traditional building. The code of ethics derived from Li (禮), which consisted of innumerable norms guiding people's behaviour, and was recorded in three early Chinese classics of the Chou Dynasty, Chou-Li, I-Li and Li-Chi. They became law and constitution, and were used in helping the emperor to rule. Li, which means "sacrifices" or "ritual" in the Chinese original, was the established procedure for various ceremonies or social activities such as banquets, funerals, receptions, and marriages.

These occasions have remained the major events in the social life to modern times. But how were these events connected with the erection of traditional buildings? Huang found that the actions of the participants, recorded in the classics, were often oriented in respect to key architectural elements. Elements such as pillars, doors, windows, rooms, halls and other space were subdivided for ceremonial uses. In his example, there were two front flights of steps to accomodate the parallel advances of the master and guest. The east steps, called Tsu-Chieh (祚階), were the master's steps. The west steps, called Pin-Chieh (賓階), were the guest's steps. When the guest reached the west hall, he turned right and stood between two pillars of the central hall, the most respected position, and faced the east, the direction of the sun (2) (See Figure 1-1-1).

---

1) The concept of man being in harmony with nature is the theme of Part 2.
2) See Huang Pao-Yu, The Influence of Confucianism, Taoism and Buddhism on Chinese Architecture, Lecture given at the Institute of Chinese Civilisation, Tunghai University, Taichung, Taiwan, in 1962

According to Huang, in order to conform to the proper Li, or in this case "propriety", such a two-step style was used in many building forms from the Han Dynasty until the Sung Dynasty (A.D. 960 - A.D.1278) (1). In this connection, it is significant that special features were integrated into traditional Chinese architecture to reflect the Confucian thought and its social norms.

1.2.3.2. The architectural pattern of courtyard houses

In his discussion on the private house and society, Willetts refers to walled enclosures, walled towns and walled homesteads as part of the physical framework of traditional Chinese life at its various levels of social organisation. He introduces the idea that the town can structurally and functionally be regarded as one enormous homestead and, conversely, that the home can be thought of as a little town (2). It is regrettable that we cannot gain a deeper understanding of the social basis of this comparison from his work, because of his omission of a detailed discussion of the courtyard house plan. The idea that a town is an enlarged homestead and vice versa needs more defense than the fact that the plans are alike from observation.

Needham regrets the fact that neither in the east nor in the west, sufficient information on the social significance of various building types is available (3). In the 14 years since his appeal, few researchers have shown interest in analysing the rational connection and the interacting forces between social phenomena and the buildings themselves.

---

1) ibid
2) William Willetts, Chinese Art, Volume 2
3) Needham, Science, Volume 4, Part 3, p 70

The architectural form of Chinese houses was, to use the words of Arthur Wright: "...a dominant pattern, which is a walled compound with a gate in one wall; a courtyard lies inside the gate, which may or may not be flanked by buildings backed up against the side walls, opposite the gate is the main building. If the scale is large, there is a garden and perhaps other buildings behind the main hall" (Italics mine) (1).

The uniformity of private Chinese homesteads is revealed not only in the way successively smaller independent architectural units persistently repeat in miniature the forms of the larger (palace, town or the capital), but also in the way space inside the residence is delimited and zoned.

The original intention of zoning in ancient Chinse settlements was to form areas for specific functions. There were three major zoned areas: for dwelling, for making pottery and for burial (see Part 2, Chapter 1). In the zoning of cities, another factor was added; cities were also zoned according to the social ranks of its inhabitants.

1.2.4. Hierarchical treatment

A major principle in the spatial formation of the house which arose from the code of ethics was that of "hierarchical treatment", a policy which was used in coping with the framework of human relationship in traditional society to fulfill the requirements of a "hierarchical order". The essence of the hierarchical order must first be explained here.

---

1) See Arthur Wright, "Symbolism and Function - Reflection on Chang An and Other Great Cities" in Journal of Asian Studies, August 1965, pp 667-679

Social and family rank played a crucial role in establishing the philosophy behind the Chinese social system. The accepted doctrine differentiated between sexes, seniority, generations, patriarchy or matriarchy, and thereby produced a definite rank for each person in family and society.

Ming fen (名份)is the Chinese term which depicts the role and duties of each individual in relation to all other individuals who may or may not be of the same family or social rank. The roles may vary under different circumstances. "Educated from childhood in such etiquette, the ancient Chinese learned to be at the right place, at the right time and to follow the right path" (1). Ming is the word for "name", here meaning "position", and fen means "duty". Ming gives a man his definite status in any society and defines his relationships with others. Without defining a social relationship by ming or name, a man would not know his fen or duties, and would not know how to behave in that relationship.

Social order will be ensured only when everyone knows his place and acts in accordance with his position. Different Li are required when dealing with others, according to the intimacy of the relationship between them and depending on the situation and place.

Some scholars called Confucianism ming chiao (名教), a doctrine of social relationship. In this idea of the "five cardinal human relationships", three deal with the family. They are the relationships between father and son, husband and wife, and between brothers, while the other two are the relationships between the king and his subject (or officer and commoner; master and servant)

---

1) Nelson Wu, Chinese and Indian Architecture, (London : Prentice - Hall Int., 1963) Chapter 4

and between friends (1). The Chinese consider that "it is the nature of all beings in the universe to be different from each other" (夫物之不齊物之情也). A hierarchical difference exists, whether it be in the domestic bond or society. It should be pointed out that social relationships outside of five cardinal human relationships also fall under a similar hierarchical structure. It was through the teachings of Confucius that the order in human relationships were shown to have originated from the idea of Li. According to Li, people were given their own position and responsibility, and this laid the basis for an orderly family and for eternal peace.

China has been a traditionally oriented society, in which the members respected the older generation and revered antiquity. For example, two kings, Yao and Shun (2), ruled during the Hsia Dynasty which was believed to have been an age of peace and order, and this period became the ideal model of a golden age. Confucius took this as an example of the unparalled past, and the Chinese after him began to idealise this period, in which the throne was abdicated in favour of the most worthy successor and land was given to the people based on a wellfield system (3). This period was regarded by

---

1) See Tu Cheng-Sheng, 傳統的家族與家庭 (Traditional clans and family) in 中國文化新論 (New Treatise on Chinese Culture), Volume on Society, (Taipei: Lien-Ching, 1982), pp 9-34
2) Yao (堯) is a legendary sage king in ancient China whose reign is said to have extended from 2357 - 2255 B.C.
Shun (舜)is also a legendary ruler said to have ruled around 2200 B.C.
3) The wellfield system is a system of land division in the Chou Dynasty under which a 900-mou plot (each mou = 733.5 square yards) was divided into nine portions like the character (well), with the eight outlying portions separately cultivated and owned by eight families, who jointly cultivated the central portion belonging to the state. See Chin Ching-Fang, 井田制的發生與發展 (The Origin and Development of the Wellfield System) in 歷史研究 (Journal for the Study of History), No.4, Peking, 1965

Confucius as having the best political system , and men strove to behave according to his teachings, which led to the reverence for antiquity.

Chin Yao-Chi pointed out that the Chinese value system was strongly oriented to the past. The mode of thinking - revering antiquity - is related to the idea of respecting elders, which was inseparably connected with the ethical and agricultural society of China. In this society, the older generation was regarded as the instructors of the younger; the former being the embodiment of wisdom and experience handed down through the generations (1).

Life in the traditional agricultural society was stable and held little change, so that most of what the younger generation would encounter in life had already been experienced by the older members of society. This was reflected in a popular Chinese thinking which said: "Trouble lies ahead for those who do not listen to elder," (不聽老人言，吃虧在眼前) and which became a creed of daily life in ancient China, in which the most important rule was absolute respect for elders. All human relationships in Chinese society involving members of different generations or ranks (such as between father and son, mother and daughter-in-law, elder and younger brother, etc.) strictly followed this principle.

According to the status and position of the inhabitants as well as to the function allotted to different sections, a Chinese house for joint families can be divided into three major areas : the core, the main area and the periphery. The main area is subdivided into personal residential and joint living area, while the periphery is

---

1) Chin Yao-Chi, 從傳統到現代 (From Tradition to Present), (Taipei: Shih Pao Cultural Publ., 1978), pp 50-51

composed of the service and a supplementary area.

Core Area	Core	Most private	Ancestral hall, rooms of eldest generation and their personal servants, inner court
Main Area	Personal residential area	Private	Rooms of head of household's generation, children, other relatives, study and reading rooms
	Joint living area	Private	Sitting hall, dining room central and side courtyards
Periphery	Service area	Semi-private	Door hall, rooms of porters and servants, front courtyard, storage room, granary
	Supplementary area	Open to all family members, servants & guests	Yard for drying grain, toilets animal sheds

1.2.4.1. Seniority among family members

Within the core and the main area, the allocation of the rooms to different family members depended on their seniority in the family. The rooms of the householder (the head of household, usually the eldest son born of the legal wife) were located in the main area, in a building which is perpendicular to the central axis. The householder was responsible for all family affairs, and when guests came to visit, he always welcomed them personally. Hence his private rooms were always located next to or near the sitting hall, in which he received outside guests. Aides to the householder, such as his brothers and their families, usually occupied the rooms next to the him, with the most senior among them closest to the householder

PAGE NUMBERING AS ORIGINAL

and the younger ones further away, depending on their age (1).

The meeting place of the brothers and their wives, the children's play area, and the working area for the women at their handiwork were all inside the main area. Most of the inhabitants of this multifunctional area were family members, and only upon entering the second door hall could one see the real life of the family. The size of the main area was decided by the size of the family, its wealth and the social position of the householder. Most main areas had only one chin, but for larger sized families, there were houses with three chin. In the normal spatial organisation of the main area in a courtyard house, the sitting hall was in the central building, flanked by residential buildings on both sides.

The core area which contained the ancestral hall also accomodated the older generation, who were the most respected and honoured members of the family. Expect for important occasions such as a marriage in the family, or the division of property, they were not involved with the trivial matters of everyday life. This area was provided for the older generation to retire in and enjoy the fruit of their past work. As this area was closed to outsiders and therefore more protected, the main characteristics of the core were quiet, seclusion and tranquillity.

Early each morning, the younger generations would come to the core area and pay their respects to the elder generation, as well as listen to their advice and admonitions. Children were forbidden to play or make noise here.

During festivities or memorial ceremonies, the most important

---

1) See Han Pao-Teh & Hung Wen Hsiung, "Panchiao Lin Family Compound The Survey, Study and Restoration", p 33-34

rituals took place in this area, such as family members worshipping their ancestors in the ancestral hall one by one, or gathering in front of the ancestral hall to place sacrifies to the deity of Heaven or Earth. Generally speaking, the core area was located behind the main area, away from the noisy street.

1.2.4.2. Segregation by sex

The division of sections of the house compound according to sex developed from the code of ethics. This type of division sometimes occurred in large high ranked families in the the service and main area, but was rarely observed in the houses of commoners and farmers where each nuclear family usually shared one or two rooms.

An example of the division by sex can be found in the old compound of the Lin Family residence in Panchiao, Taiwan (see Figure 1-2-3). In its main area, the buildings on the right side belonged to the unmarried male members and those on the left to the unmarried female members, with the central axis of the house compound acting as boundary. The unmarried female members were not allowed to enter the male residential area, while the unmarried male members were also not permitted to enter the female area. Each segregated area had its own corridor which was not to be used by members of the opposite sex. Even the private theatre of the Lin Family contained two segregated areas for the seating of members of the opposite sex (1). In two-storey chop style houses in southern Anhui, a segregation sometimes occured by placing the unmarried male members in the

---

1) See Han Pao-Teh and Hung Wen-Hsiung, Panchiao Lin Family Compound, The Survey, Study and Restoration, (Taichung:Tunghai University, 1973), p 22

ground floor and the unmarried female members in the second floor (1).

1.2.4.3. Masters and servants

In a courtyard house with several chins, such as the Lin Family residence in Panchiao, the first courtyard, with the two side rooms next to the entrance hall and the two buildings flanking both sides of the courtyard, was used as the working and sleeping area of the servants. Normally in the mornings, after opening the front gate and cleaning the courtyard, the servants tended to their master's and mistress's morning hygiene and prepared their breakfast. Two or four sedan-chair bearers waited in their resting room, prepared to serve the householder when he went out. They sometimes helped the servants with some heavier work. Porters were in charge of receiving guests or vendors, and crossed the different areas to carry forward messages or deliver orders. Guests usually waited in the doorhall for the reply or appearance of the householder. The service area was usually located between the main area of the masters and the public area outside the family walls. Without their masters' instructions, the general servants were not allowed to enter the main area. Just as the high walls and gates separated the outside public area from the house compound, the service area was clearly separated from the masters' main area by walls, gates or a ditch.

Another group of servants lived close to their masters' bedroom in the main area to tend to their daily needs. A personal maid

---

1) See Wang Kuo-Yü, 徽州民居建築風格初探 (Preliminary study of the architectural style of houses in Huichou) in 建築師 (The Architect), Peking, No. 9, Dec. 1981), p 151
2) See Han Pao-Teh and Hung Wen-Hsiung, Lin Family Compound, p 22

usually lived near or with the unmarried female members, while boy attendants stayed with the young masters and accompanied them in their studies. These servants were the extended eyes and bodies of their masters and mistresses, and were not allowed to leave them without permission.

1.2.4.4. Family members and outsiders

To the Chinese, outsiders were people who were not family members and who did not live within the same surrounding walls. The treatment of outsiders was based on their status and the degree of privacy of various areas.

A stranger or beggar who was not welcome into the house was stopped at the front door. An unexpected guest was asked to wait in the door hall so the master could decide whether or not to see him. A peddlar could be asked into the courtyard of the service area to show his goods or food; peddlars who sold textiles, cosmetics, or instruments for needlework were asked into the courtyard of the main area, as the girls were not allowed to leave this area.

A guest whose arrival was expected was met at the door hall by the master and led to the sitting hall in the main area. The sitting hall was the final point where a normal guest could visit; only intimate friends and relatives were allowed in the private rooms of the family or into the inner courtyard.

Fixed rules in the treatment of guests also stated that the guests could not live in the same courtyard as the family members. As guests were considered outsiders, guest rooms were located in the service area and not in the main area, clearly showing the distinc-

tion between family members and guests. During the daytime, guests were invited into the sitting room in the main area, but at night they returned to the guest rooms outside of the main area to rest. Exceptions were only made for higher-ranking guests who could sleep in the main area.

After discussing the separation of the courtyard house into three areas, I would now like to show how privacy was perceived in the various areas.

The degrees of privacy are illustrated in Figure 1-2-4, for courtyard houses with a longitudinal development, and Figure 1-2-5 for the combined longitudinal and lateral development. In these two figures, the higher density of lines show areas of greater privacy. Laterally developed houses were generally inhabited by farmers, and except for the ancestral hall, little importance was placed on the privacy of certain areas.

The various areas inside the house compound had their own fixed principles of behaviour which were taken into consideration in the planning of the spatial organisation, resulting in a hierarchical spatial order. Nelson Wu comments: "In a house with a sequence of yards...ushering a guest would indeed be a time-comsuming matter. Because the passing of each gateway is a penetration into new depths of someone's privacy" (1).

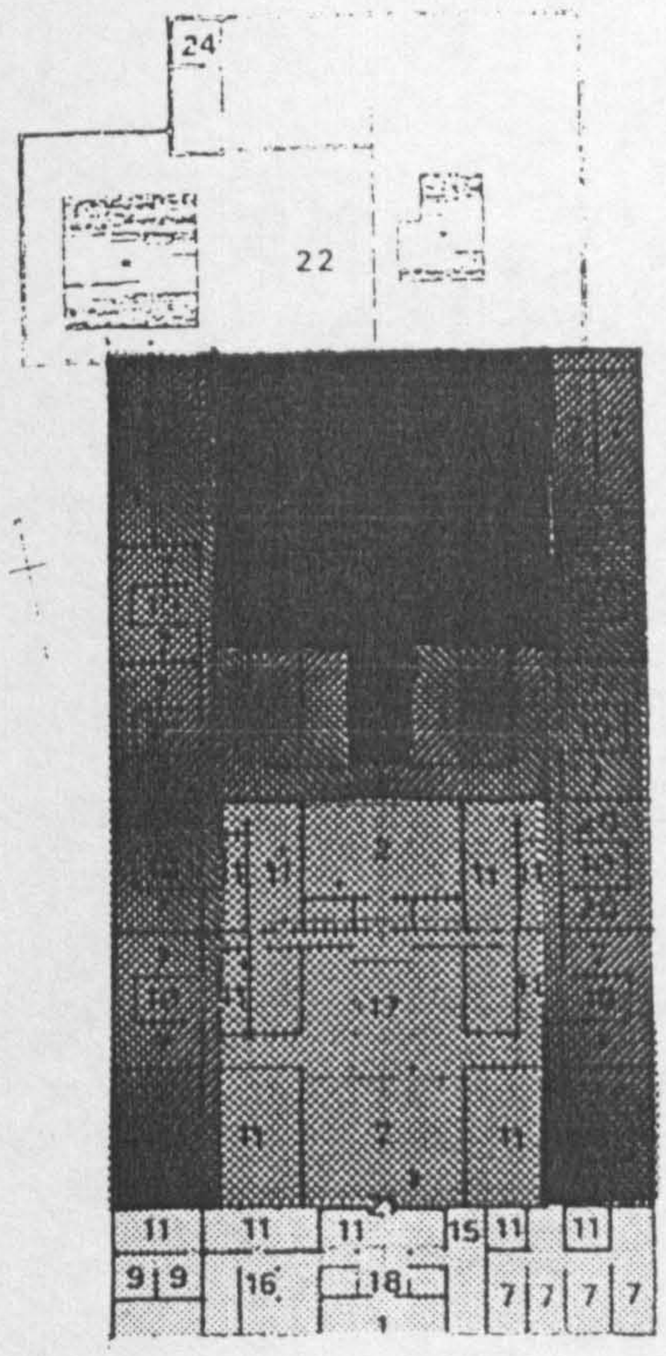
This course of penetration led from the public area to the most private area in the following manner, which is regarded as a hierarchical, graduated privacy:

---

1) See Nelson Wu, Chinese and Indian Architecture, (London : Prentice-Hall Int., 1963) p 33

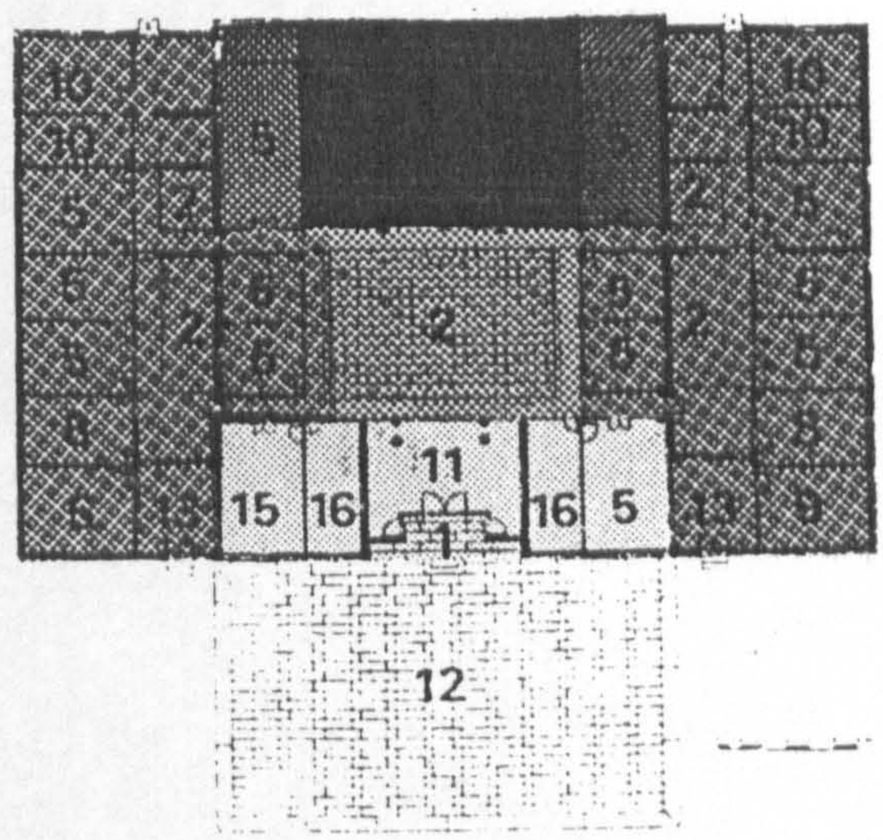
public ----:---- semi-public -------- semi-private -------- private
:
:
:
boundary of the residence (high walls)

Figure 1-2-4 Longitudinal development



House 18 in Chekiang province

Figure 1-2-5 Lateral development



House 26 in Taiwan

Supplementary area

Service area

Joint living area

Personal residential area

Core

1.2.5 Importance of the central axis

As previously mentioned, in all forms of the courtyard house, a central axis exists as the basic "spine" to provide for the internal spatial organisation. The importance of the central axis seems to have emerged only in the traditional period, when the number of rooms or spans in the main lateral buildings on the central axis was odd, with the central span used as entrance, door hall, sitting hall or ancestral hall. Such a phenomenon could not be found in the archaeological remains of the Shang Dynasty (1600-1028? B.C.), where only even numbered spans existed and the entrance was thus not on the central axis. Even in the Han Dynasty (206 B.C.-220 A.D.), two entrances and two paths were commonly found and the central axis was not yet strongly emphasized (1) (See Figure 1-1-1).

The main function of the central axis was not only for ancestral worship and ritual purposes, but also for performing the main events of daily life. These included receiving guests, the younger generation paying respects to the elders, holding family meetings, etc. Consequently, all main halls in our examples, considered the principal areas, were located on the central axis in the following orders:

F.D. ----- A.S.H. (Houses 1, 5 and 6)

F.D. ----- S.H. ----- A.H. (Houses 21, 22)

F.D. ----- D.H. ----- A.S.H. (Houses 7, 8, 12, 23, 24 and 26)

* F.D. ----- D.H. ----- S.H. ----- A.H. (Houses 13, 14, 20, 25)

* F.D. ----- D.H. ----- A.S.H. ----- B.H. (Houses 31 and 32)

F.D. ----- D.H. ----- S.B.H. ----- A.B.H. (House 17)

* F.D. ----- D.H. ----- S.H. ------- A.H. ----- B.H. (Houses 16, 18,19,29,30)

---

1) See Huang Pao-Yu, "The Influence of Confucianism, Taoism and Buddhism on Chinese Architecture"

F.D. - Front Door

D.H. - Door Hall

A.H. - Ancestral Hall

S.H. - Sitting Hall

A.S.H. - Ancestral & Sitting Hall

B.H. - Back Hall

A.B.H. - Ancestral & Back Hall

S.B.H. - Sitting & Back Hall

In the orders with a *, the front door may not be located on the central axis. The main reason for other locations of front doors can be explained by the search for the proper orientation in Yang Chai Theory, which forms the theme of Part 2, Chapter 3. In Houses 23, 24, 25 and 26, owing to the small size of the compound, the front door and the door hall are located in the same lateral building. All the halls on the central axis belong to the principal area of a house. The halls are either wider than or of the same width as the rooms flanking them, but rarely narrower. This again indicates the importance of the central halls.

In a courtyard house, the principal and secondary areas can be divided according to the following scale:

principal				secondary
1	2	3	4	5
halls	rooms (side halls, bedrooms)	kitchen	storage and granary	animal sheds, toilets

The rooms belonging to group 5 were mostly placed furthest from the ancestral hall, at the end of the side rooms, in outer side buildings or in individual thatched sheds. Groups 3, 4 and 5 formed the secondary areas.

Greater importance was placed on the construction materials of the buildings on the central axis. Building materials could be divided into several categories in the order of their value : first came

wood, then granite, bricks, bamboos, stone and lastly, earth. If a house was to be built of materials of different value (depending on the owner's financial situation), the most costly of the materials chosen was used in constructing the main lateral buildings along the central axis. The side buildings were then built of more economical materials, while cattle sheds and latrines consisted of earthen walls and thatched roofs (1).

Importance was also placed on the amount of decorations in the central axis. Traditional artisans developed a distinctive method of decoration. In order to give a better impression of the house as a whole, each portion of the house was decorated individually. Pictures of door gods and New Year couplets could be found on front doors. On entering the house, people passed through the door hall and arrived at the first courtyard, where they were greeted by differently patterned lattice windows or windows with different shapes. When they arrived at the corridor in front of the sitting hall (usually combined with the ancestral hall), they would see fine carvings of auspicious animal or plant motifs on the wooden beams above the corridor, which were the most ornamental and important decorations of the whole house, as they led to the last room which could be visited by common guests. The furniture and decorations of the ancestral/sitting hall showed two main characteristics : all the furniture and decorations were placed symmetrically, and they were always the best in quality of the whole house. The decorations in this hall included paintings of clouds, the eight trigrams, animals or plants on the beams and fine carvings of god images on the altar and on the Eight-Gods table (八仙桌). All

---

1) See Kuan Hua-Shan, 台湾傳統民宅所表現的空間觀念 "Traditional Houses and Folk Concepts in Taiwan" in 中央研究院民族學研究所集刊 Bulletin of the Institute of Ethnology Academia Sinica, No. 49, 1980, pp 201-203

these images accumulated by walking along the central axis added up to a favourable impression of the whole house (1).

1.2.6. The relationship between house form and order of seniority

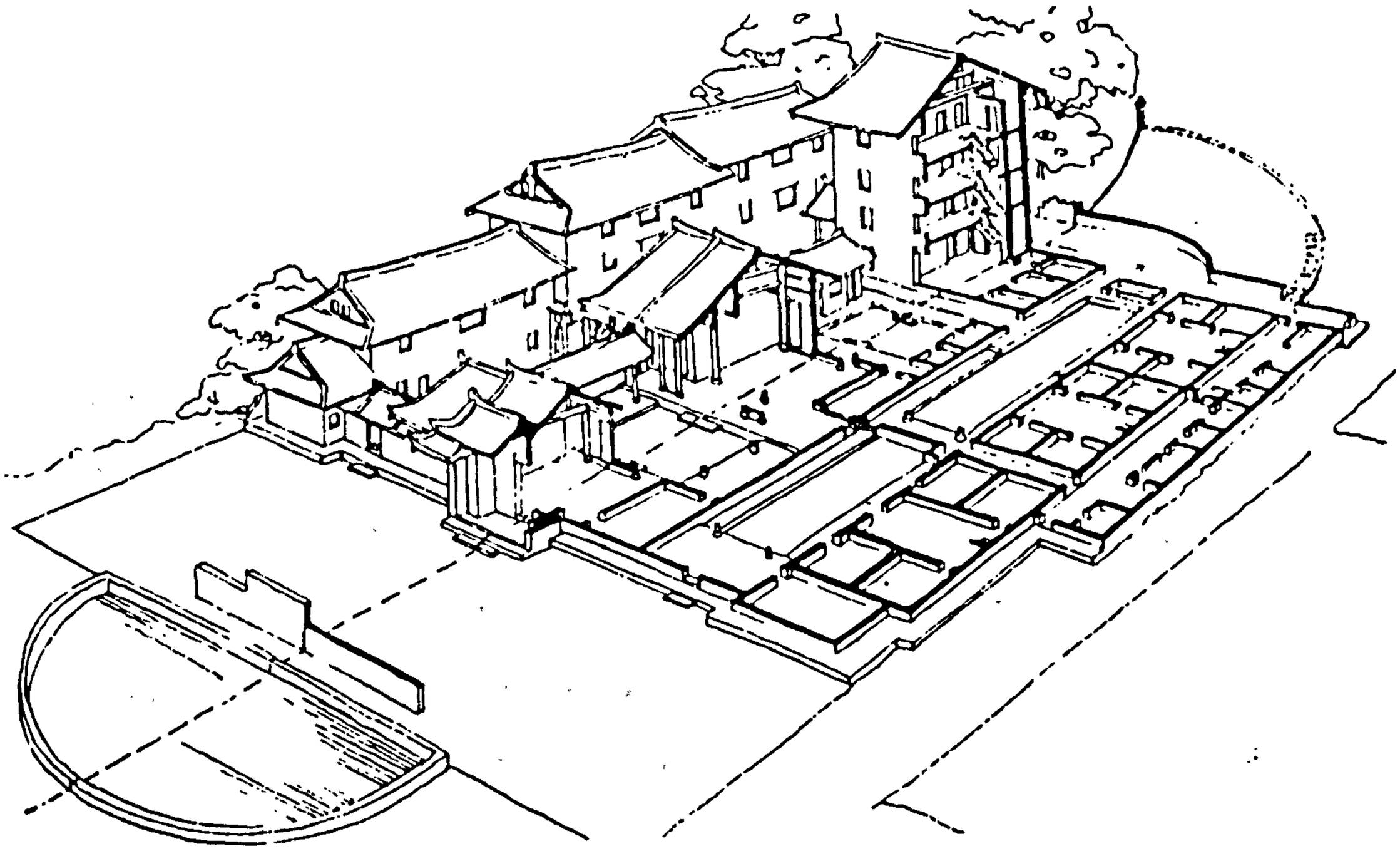
The house form also strongly reflected the order of seniority. The roof of the ancestral hall and of the bedrooms of the oldest generation in a courtyard house was higher than all other rooms, which showed the high family ranking of the elder inhabitants. While the ancestral hall, which was located on the central axis of the house plane, was the highest point of the whole house, the height of the halls of the other courtyards along the central axis (door hall, sitting hall, ancestral hall) was determined by the importance of the room - the more important the higher. This resulted in the common house form in which the front and side buildings were lower than the back and central buildings. An example of this house form in Northern China is a house near Tien An Gate in Peking, in which the buildings in the front courtyard are lower than those in the back. (See Figure 1-1-25, House 25).

In the multi-storey communal compound of the Hakka people, the buildings are lower in the front and higher towards the back. The highest buildings usually housed the eldest generation of the clan/family. Many of these houses were built along hillsides, utilising the natural slopes to achieve the correct house form (see Figure 1-2-6). Because of the multiple storeys in the rear of the compound, the difference in the side view of the roof heights is even more evident than in single storey houses.

---

1) For a detailed description and explanation of the meanings of the decorations used in Chinese houses, see Part 2, Chapter 3.

Figure 1-2-6 Hakka House in Yung-Ting County, Fukien
(Liu Tun-Chen,1980, p 112)



In many houses of joint families, the height of the floors also followed the same principle - the front rooms had the lowest floors, while the height of the floor was gradually raised the further back the building was located. By following this rule, the superior status of the elder generation was reflected in their living environment as they resided at the highest and innermost point in the house compound.

From the practical point of view, however, problems were caused by the strict adherence to the rule concerning the height of the buildings. In the new compound of the Lin family residence in Panchiao, Taiwan, the compound had five courtyards and this large number posed a problem with the floor heights. The floor of the third hall was already raised to the limit of accessibility and if the floors in the halls of the next two courtyards were built even higher, it would be very difficult and inconvenient for the elders

to climb the many steps to reach their own rooms. A solution was found by lowering the floor level of the fourth hall to allow for an accessible height in the fifth. This was an exception made for a house with many chins (1). Generally speaking, the floors of the buildings in the interior courtyards should not be lower than the floor in the front building.

In the lateral development of a commoner's house, the floor of the central buildings was always one to two steps higher than that of the protecting buildings. The principle concerning the height of the buildings in the lateral development was that they were to be lower the further away they were from the central axis, as they were used by the younger generations.

1.2.7. Symmetrical image and hierarchical order

Many writers have compared the spatial organisation of Chinese architecture to various living or inanimate objects. Needham likened it to an armchair, while Skinner compared its shape to that of a horse shoe (2). Kuan Hua-Shan found the organisation similar to the top view of a human body (3). What these objects have in common with the spatial organisation of the Chinese house are:

1. the frontal appearance, which is a space enclosed on three sides and open to the front, and
2. the basic symmetry of left and right and a central axis.

Although Confucian thinking has been attributed to the main symmetrical characteristics of Chinese architecture as having been an

---

1) Han Pao-Teh & Hung Wen-Hsiung, "Panchiao Lin Family Compound", pp 61-67
2) Stephen Skinner, The Living Earth Manual of Feng Shui (London : Routledge & Kegan Paul, 1982) Chapter3
3) Kuan Hua Shan, "Traditional Houses and Folk Concepts", p 191

unusually strong formalism in preventing the progress and development of Chinese architecture into other possible forms, Lee Yün-Ho believed this to be an incorrect inference and noted that the same phenomenon could be found in the architecture of ancient Egypt, Central Asia, Greece and Rome, as well as in the temples and churches of the Middle Ages in Europe (1).

Symmetry itself is one of the most common characteristics of man and his artifacts. It is therefore improper to place the origin solely on the influence of Confucianism. Chuta Ito believes that the symmetrical image was the reflection of what man found in the natural world (2). This idea corresponds to the comparison made by Kuan Hua-Shan of the house resembling a human with outstretched arms viewed from the top.

If we study the symmetry in Chinese architecture closely, we find that while there exists a basic symmetry, there are some particulars which are not the same on both sides of the central axis. In a courtyard house, the elevation of the buildings on the left hand side (seen from the position of the ancestral hall) is sometimes higher than that of the right hand side buildings, while according to the plan, the length of the former is sometimes slightly greater than that of the latter. Discussing this phenomenon, Gale suggested that it arose from the concept of Yin and Yang. According to him, symmetry was a method to achieve a visual balance, as it was one of the correlates which was under the control of Yin and Yang, the supreme principle for all polar opposites or "synchronistic

---

1) See Lee Yün-Ho, Cathay's Idea-Design Theory of Chinese Classical Architecture, pp 147-149
2) See Chuta Ito, Peculiarities of Chinese Architecture, (Tokyo - Academy of Oriental Culture, 1941), p 28

tic correlates" (1) in the world (2). As known in Confucianism, an important characteristic of Yin and Yang was that Yang was the stronger, longer and more powerful of the two. An explanation for Yang corresponding to the left side was given by Tuan Yi-Fu, who said that the Chinese social and cosmological space centered on the ruler who mediated between heaven and earth and was at the centre of the country. The ruler was facing south and the sun. His left side was therefore east, the direction of the rising sun and Yang (literally meaning brightness), and his right side was west, the direction of the setting sun and Yin (darkness). Thus while many peoples regarded the right side to be more honourable than the left, the Chinese took the contrary opinion and viewed the latter as being more important than the former (3).

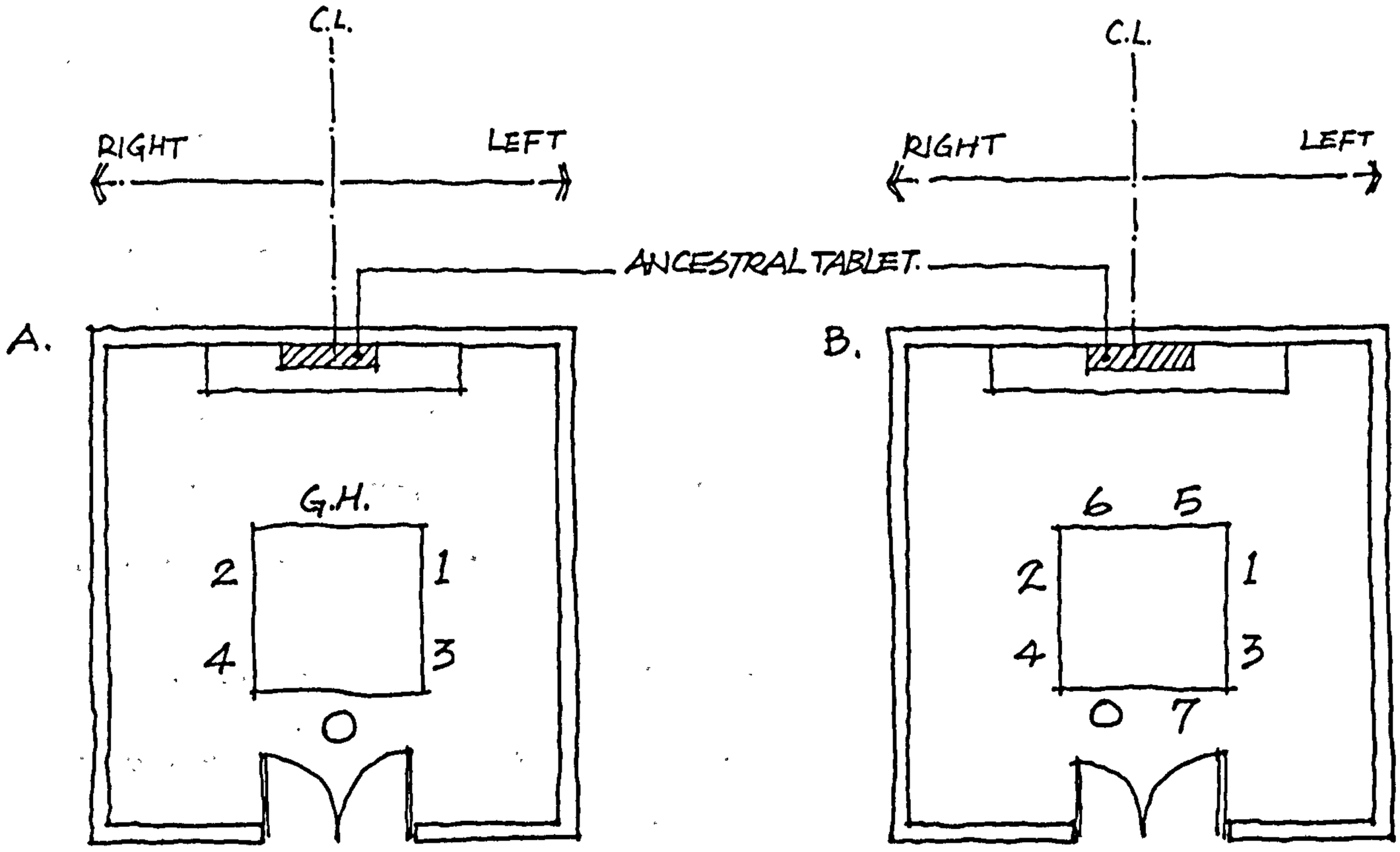
1.2.7.1. The importance of left over right

A similar idea of symmetry was carried over into other aspects of the Chinese residential environment (4). It contained a fixed order which was always adhered to, which stated that the left side (looking south from the position of the ancestral tablets) was more important than the right, and the ranks of those on the left should be higher than those on the right. Following this rule, seats in the sitting room and dining room were arranged according to Figure 1-2-7. The seats on the left hand side were given to members with

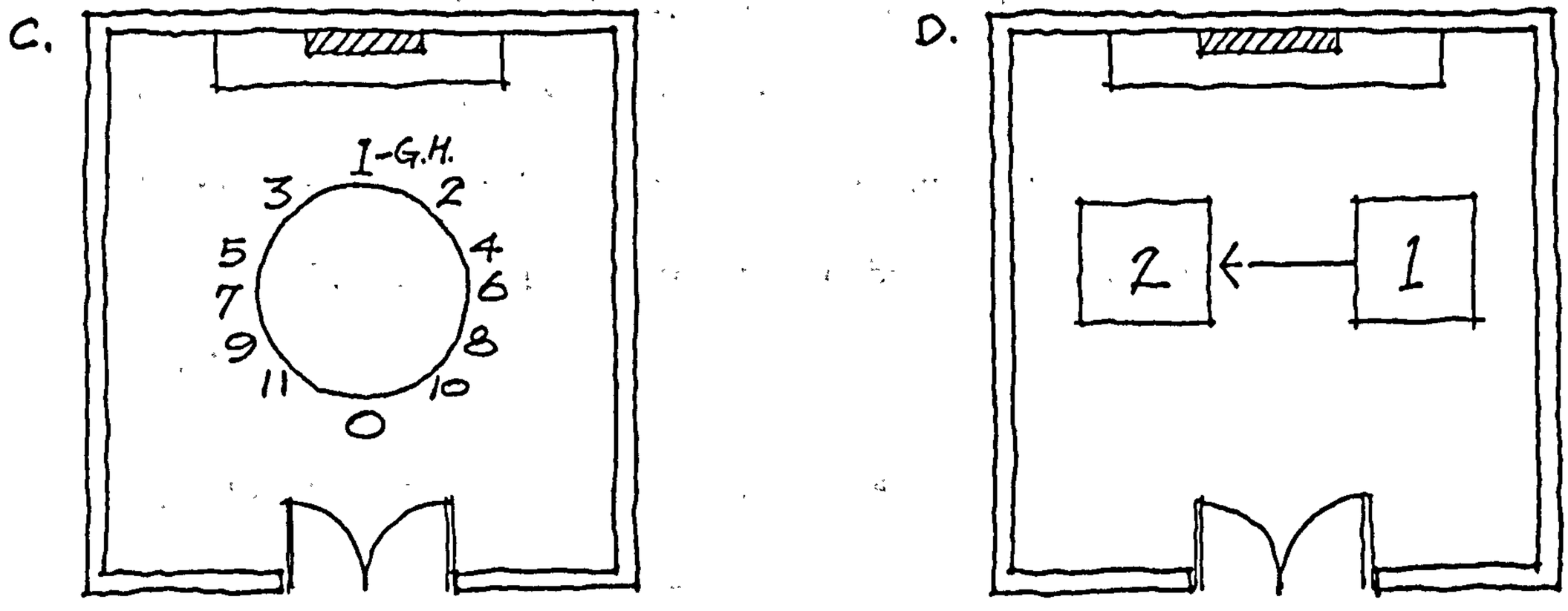
---

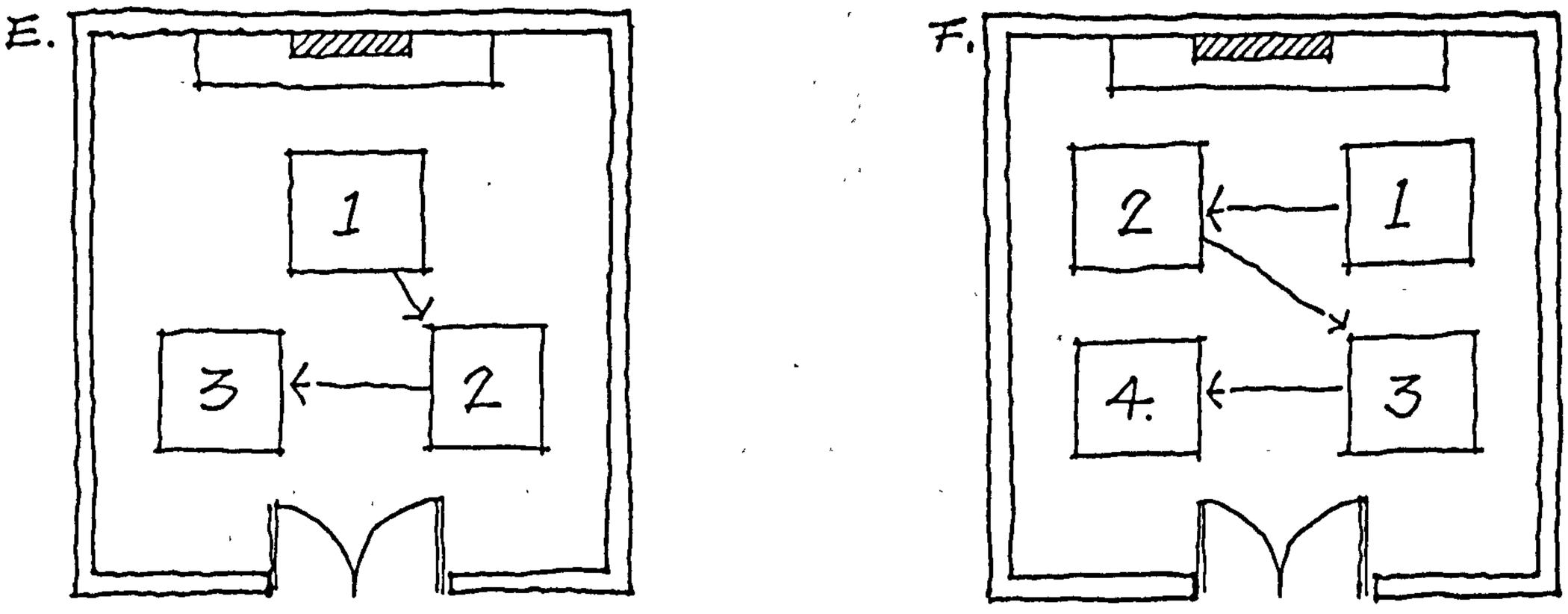
1) The term "synchronistic correlates" was used by Needham and refers to correlates such as upper and lower, left and right, external and internal, beauty and ugliness, obedience and disobedience
2) Simon Gale, "Orientation" in Process : Architecture 25, Tokyo 1981, pp 36-50
3) See Tuan Yi-Fu, Space and Place, (London : Edward Arnold Ltd. 1977)
4) This rule was also followed in the arrangement of furniture, decorations, etc.

Figure 1-2-7 Seating arrangements (A,B,C) and order of tables (D,E,F)



G.H. GUEST OF HONOUR.
O. HOUSE HOLDER.





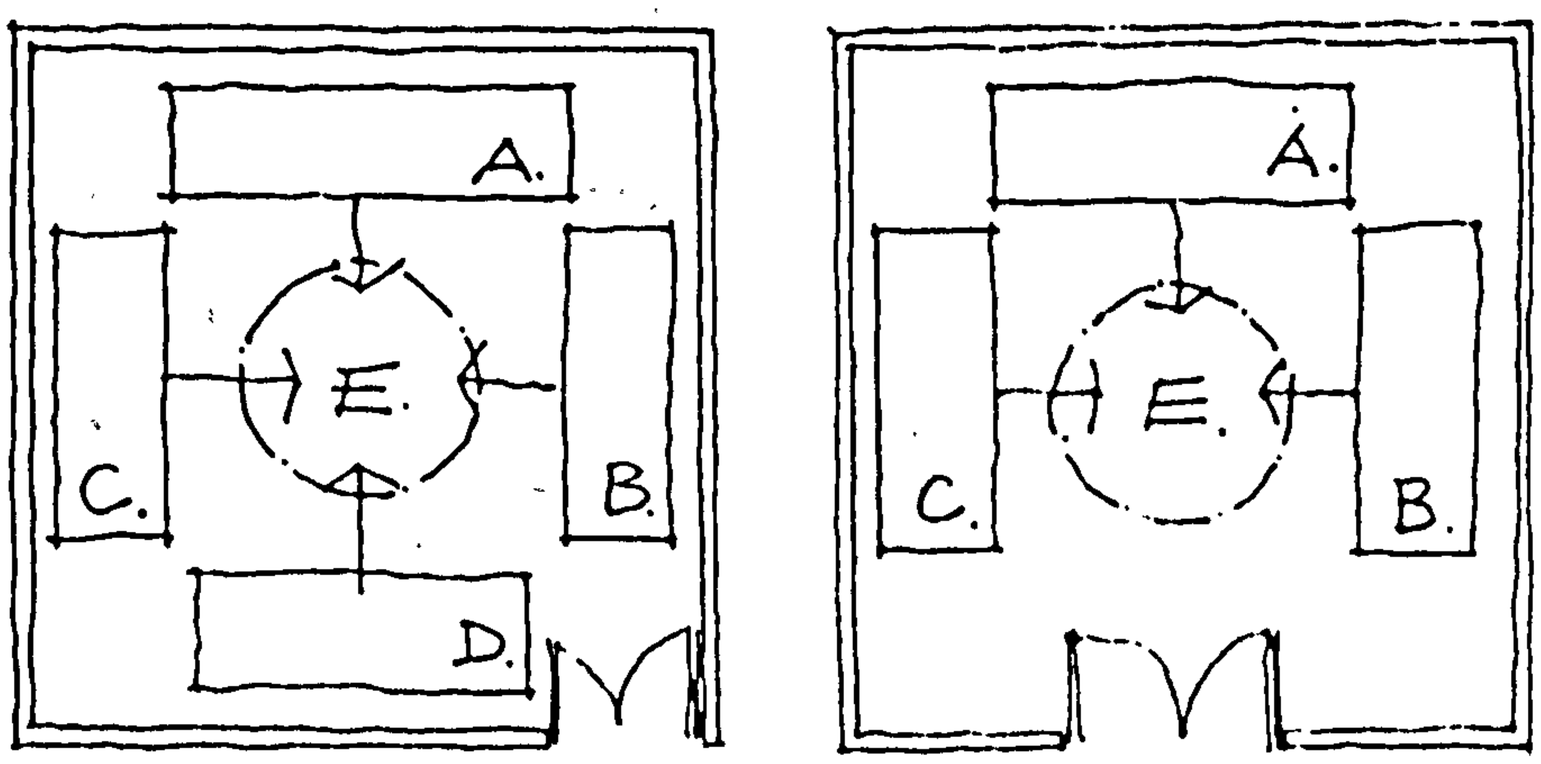
higher social status than those on the right hand side, while the closer the seats were to the ancestral tablets, the more important they were considered. All these rules were part of the hierarchical order of Chinese life.

This order also prevailed in the arrangement of ancestral tablets and statues of gods. The gods were either placed in the centre of the altar with the ancestral tablets to their left, or as sometimes in Southern China, the gods were placed on the left side and the ancestral tablets on the right.

In the spatial organisation of Chinese houses, the most honoured room was the ancestral hall which was always located on the central axis. This, of course contained the ancestral tablets and sometimes also statues of the gods. In the construction of the house, the first building to be built was also the central one with the ancestral hall, followed by the side building on the left and then the building on the right. In a single courtyard house as shown in Figure 1-2-8, the importance of the buildings followed the order A >B >C >D.

Figure 1-2-8 Construction Order of Buildings

A. Main building
B. Left wing
C. Right wing
D. Service building
E. Central courtyard



---

1) See Kuan Hua-Shan, "Traditional Houses and Folk Concepts in Taiwan", p 196

This principle of the significance of the central location as well as that of the importance of the "left" over "right" may have originated in the rituals which existed in China since the Chou Dynasty (1027 ?-256 B.C.). The worship of ancestors and gods was an ancient tradition of the Chinese, who believed that they lived under the influences of the gods and ancestors and depended on them for major decisions. When ceremonies were held to worship gods or honour ancestors, a certain arrangement was followed in placing the individual objects of worship (ancestral tablets and emblems of gods).

In discussions of the relationship between the worship of ancestors and gods and the origin of the Chinese courtyard house (1), it has been pointed out that the prototype of the courtyard house contained two kinds of ceremonial spaces; an indoor space for worshipping ancestors and spirits and an outdoor area for the Gods of Heaven and Earth. These two vital areas of worship were a requirement for all types of Chinese residential houses (2).

What I would like to discuss here, however, is whether the idea of "the left being more important than the right" derived directly from the rituals of ancestor worship, or if both the ritual system and the spatial structure developed from the same order.

In his essay on ritual life in ancient China, Chang Kwang-Chih considered a major characteristic of ancestral worship in China the institutionalisation of a system of beliefs and ceremonies (3).

---

1) Such as Wang Chen-Hua, 華夏意象 (Chinese Images) in 中國文化新論 (New Treatise on Chinese Culture), edited by Liu Tai, Vol. on Arts, (Taipei: Lien-Ching, 1982), pp 713-714
2) An explanation for this will be found in Part 3
3) See Chang Kwang-Chih, 中國遠古時代儀式生活的若干資料 "Evidence for the Ritual Life in Prehistoric China" in 中研院民族研究所集刊 Bulletin of the Institute of Ethnology, Academia Sinica, No.9 1960, pp 253-270

This fixed institution included the ceremony system, the particular place of sacrifice, the subjects of worship, offerings and a set of mythical legends (1).

The ceremonial system of ancestral worship in the Chou Dynasty was called the Chao Mu System (昭穆之制). A clear record in the Li Chi (禮記 , Book of Rites) on the System of Temples stated: "The son of Heaven has seven temples; three are Chao (昭) and three are Mu (穆), and together with the temple of the Tai Tsu (太祖), or Greatest ancestor, make seven temples. The King's duke may have five temples; two are Chao and two are Mu, and together with the Tai Tsu temple make five. A government official may have three temples; one is Chao and one is Mu, and together with the Tai Tsu temple make three. A scholar has one temple; while the commoner may only worship in his house" (2).

Based on this passage in Li Chi, Chu-Hsi explained the arrangement of the temples (3). The siting of the temples and their spatial arrangement shall be described in detail here.

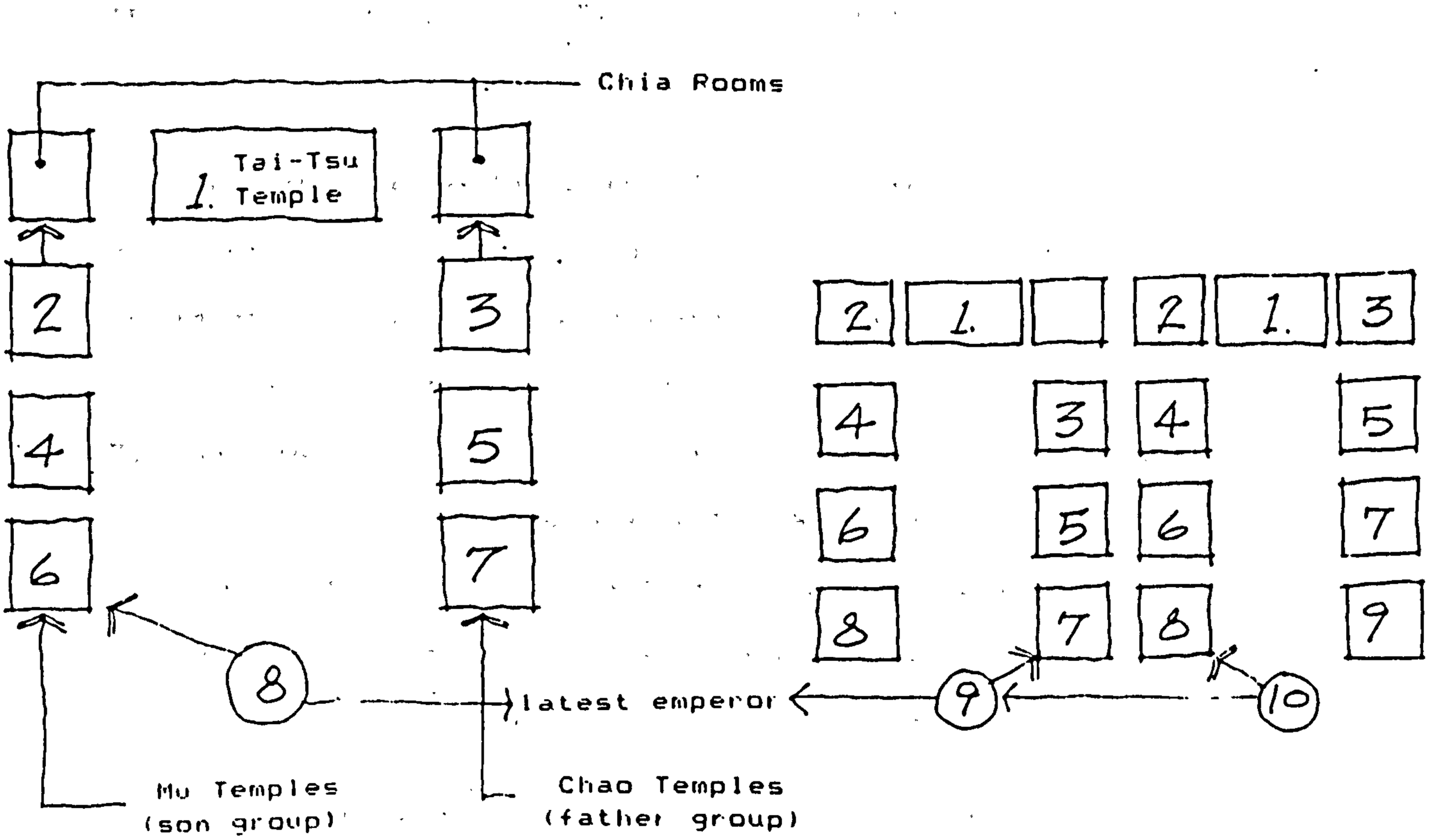
At the northernmost central position, the temple of the Tai Tsu was placed. As the founder of a state, Tai Tsu was the most important and honoured hero in the history of the state and his temple was not to be moved or changed. The other ancestors were divided into two groups (according to their generation) and worshipped in temples which were linearly located to the south of the Tai Tsu temple on both sides of the central axis. In this ritual of ances-

---

1) See Chang Kuang Chih, Ritual Life, p 253
2) See Li Chi, Chapter Wang Chih, 王制，天子七廟，三昭三穆，與太祖之廟而七．諸侯五廟，二昭二穆，與太祖之廟而五．大夫三廟，一昭一穆，與太祖之廟而三．士一廟，庶人祭于寢．
3) Chu Shi (1130 - 1200) used the Duke's temple to explain the system of temples. See Chu Tien-Shun, 中國古代宗教初探 (Study on Ancient Chinese Religions), (Shanghai: Jen-Ming, 1982), p 210

tral worship, the Chao Mu System, the ancient Chinese named the ancestors of the even numbered (or Yin numbered) generations the Mu group and the odd numbered (or Yang numbered) generations the Chao group. The Chao temples were built on the left (looking south from the Tai Tsu temple) and the Mu temples on the right. The Yang (odd) generations were considered the father group while the Yin (even) generations were always considered the son group. When the oldest male member of a generation died, his children placed his tablet in the last temple of his generation group (furthest from the Tai Tsu temple) and moved the tablets of preceding generations each to the next temple in line. The tablets of the ancestors who came after the Tai Tsu and before the last seven generations were placed together in the Chia Rooms (夾室) flanking the Tai Tsu temple.

Figure 1-2-9 Order of Temples



This arrangement shows the importance of the left over the right and the different positions they represented. The son group was placed on the western side (or the right, as seen from the Tai Tsu temple) facing the direction of the rising sun and also facing the father group to show their respect (1).

Since ancestral temples were considered the place where the spirits of ancestors resided and where a person could communicate with his ancestors through different divining objects to ask for their blessing, a similar situation existed for the commoners. As previously stated, according to the Li Chi , a scholar could have one temple, while commoners were only allowed to worship their ancestors inside their private homes. They therefore found the position inside their home corresponding to the position of the Tai Tsu temple as the location of their ancestral hall where the ancestral tablets were placed. This room also provided a proper place for family members to hold rituals and ceremonies.

In the same manner as the ancestral tablets were placed in temples according to the generation group, as previously described, the arrangement of ancestral tablets inside the ancestral hall called for the odd generation group to be placed on the east side of the Yuan ancestor (2) and the even generation group to be placed on the west side. During the worship ritual, the family members stood in two rows in the order of their birth. The eldest son and the odd ranking members stood on the left (or east side) of the altar, while the even ranking members stood on the right (or west).

---

1) See Lin Ch'un-Sheng, 中國祖廟之起源 "Origin of the Ancestral Temple in China" in 中研院歷史研究所集刊 Bulletin of the Institute of History, Academia Sinica, p 141-180
2) Wooden tablet in honour of untraceable original ancestors

This arrangement again embraced the crucial idea that the left belonged to the father or elder group and deserved more respect than the right, which belonged to the son or younger group.

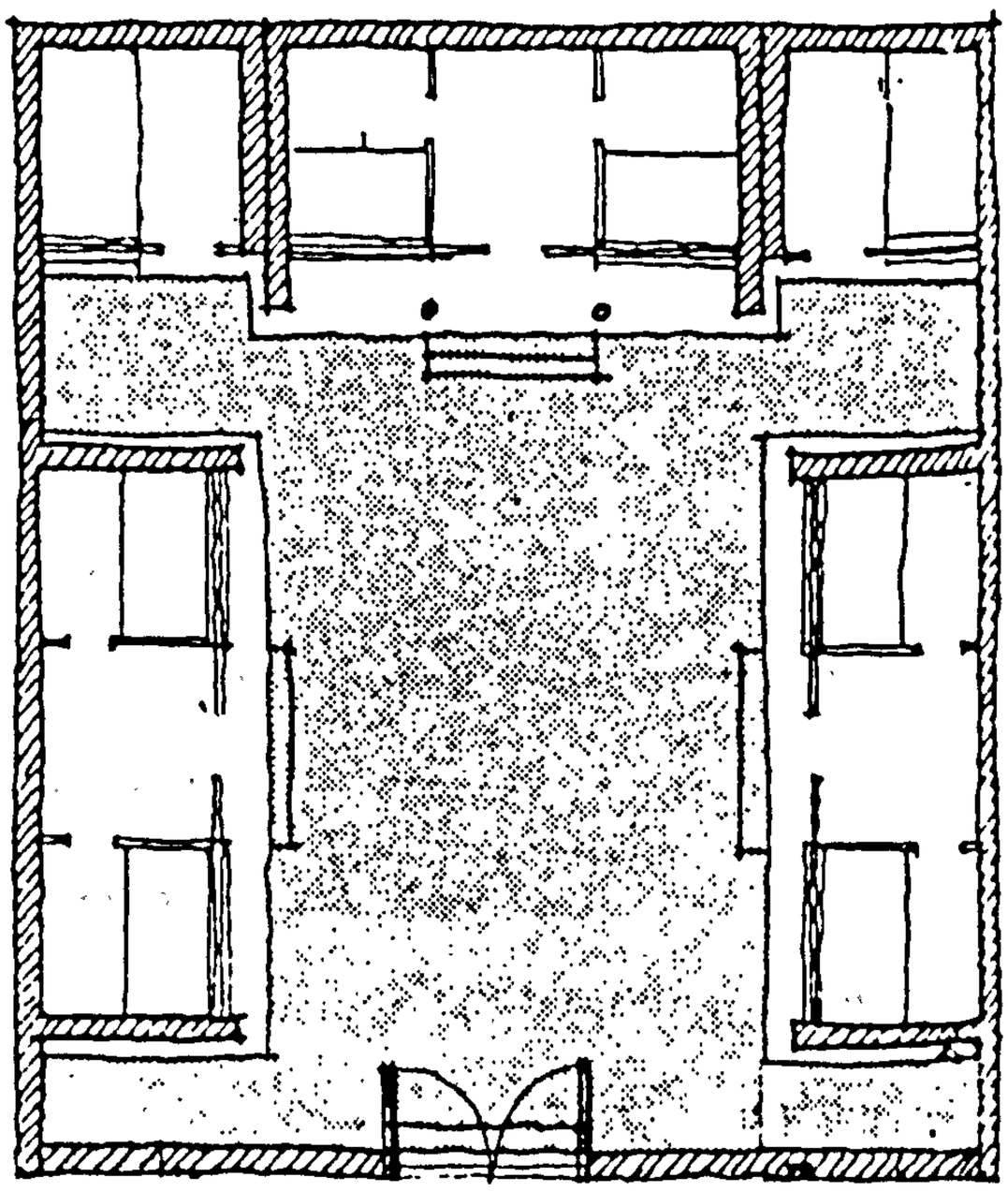
The arrangement of temples is imitated in the courtyard house, in that the ancestral hall is located at the most important position in the courtyard house, corresponding to the position of the Tai Tsu temple, and is considered the focal point of the house compound. The hierarchical framework which had developed from the rituals of ancestor worship in China thus found itself reflected in different aspects of Chinese life, including the spatial framework and organisation of houses. By connecting the Tai Tsu temple and the Chia Rooms (side rooms) to form a row of lateral buildings, and by joining the temples on the left and right hand side (the Chao and Mu temples), to form two longitudinal rows of rooms, as shown in Figure 1-2-10, we arrive at the prototype of the Chinese courtyard house, the "Three in One" (三合院).

This supports my view that the Chinese courtyard house form followed the same arrangement as the ancestral temples of the Chou Dynasty. It should be emphasised here that the order which existed in the rituals and ceremonies of ancient times strongly influenced the practical form of later Chinese dwellings, the spatial organisation and the usage of various sections of the house (1).

---

1) For an analysis of the relationship between places of worship and the dwelling, see Part 2, Chapter 1.

Figure 1-2-10



Discussion and Conclusion

All living things need a physical boundary that separates them from their external environment. The wall surrounding the courtyard house is the visible boundary which separated family life from the outside world. Inside the Chinese house, although a certain degree of freedom was provided which may not be possible outside the walls, "family law" based on the teachings of Confucius helped keep order within the family.

Based on these Confucian rules, the courtyard house could be divided into several subsections according to two major factors. Firstly, space within the house was not treated equally, which led to the differentiation of functions for the different sections. Secondly, the spatial character of particular sections limited their usage to certain household members. Thus the various sections possessed different values although they existed within the same boundary, and formed a spatial organisation which was unique to the Chinese people.

The spatial organisation of traditional Chinese courtyard houses strongly reflected the order prevalent in Chinese society governing human relationships, the code of ethics. Confucianism emphasised the importance of the orderly family as the basis for a peaceful world. It would not be correct to say that the courtyard house developed only from the thinking of Confucius; however, the rectangular courtyard house form of the traditional period best fulfilled the requirements of the family order. This hierarchical order distinguished between the different family ranks: senior and junior members, masters and servants, unmarried male and female members, family members and outsiders.

The family rank of a person could be seen from the location of his room. The most protected rooms in the house belonged to members of the oldest generation, considered the spiritual leaders of the family; followed by the householder and his generation, the providers of the family. Next in line were the children generation and lastly, the servants.

Confucianism emphasised the importance of the family walls as the protection of family privacy. In the plan of the courtyard house, the area closest to the entrance was used as the service area, while the degree of privacy increased with a more interior location of the area. The most private was the core area, which consisted of the ancestral hall and the rooms of the oldest generation.

The ritual function of the courtyard house led to the emphasis on the central axis and the symmetry on both sides. This phenomenon reflected the spatial arrangement of the temple system of the Chou Dynasty, in which the Chao temples were placed on the east side and the Mu temples on the west side. The enables us to understand why the importance of the left over right became a principle followed by later Chinese in the construction and decoration of their houses.

In Chapter 2, I have discussed the influence of the Confucian ethical order on the form and spatial arrangement of the courtyard house. However, the Chinese view of nature and the universe played an equally important role in traditional Chinese life. Its influence was not visibly reflected in the building form, rather, it cultivated a distinct view of life and taught the Chinese how to build a house which harmonised with nature, and how to arrange a man-made living space in the universe without disturbing its order.

As Needham has emphasized, in no other field of expression did the Chinese so faithfully incarnate their principle "Man cannot be thought of apart from nature" as in their architecture. Chinese architecture was always with and not against nature. The main features of the relationship between Chinese architecture and nature, according to Needham, can be summarized as follows:

1. The preference of the Chinese to construct all buildings for the living in the relatively impermanent materials of wood and tile, bamboos and plaster.
2. The use of horizontal spaces as the keynote of Chinese architecture and planning; although some buildings may be one or two storeys above the ground floor, their height was subordinated to the large horizontal perspectives of which they might form a part.
3. The embodiment of a feeling for cosmic pattern and the symbolism of directions, the seasons, winds and constellation in all types of buildings (1).

Most of the fabric of Chinese architecture was composed of the relatively impermanent natural materials mentioned in Point one. The Chinese preference of these materials led to the continuous development of their wooden techniques, and as Needham stressed: "No Chinese house could be a proper dwelling for the living, or a proper place of worship for the gods, unless it were built in wood and roofed with tile" (2). The symbolic meaning of these natural materials was appreciated, as to the Chinese, the house was not a permanent memorial. These materials were categorised into several

---

1) Joseph Needham, Science and Civilisation in China, Volume 4 part 3, p 60-61
2) ibid, p 65

classes; wood and bamboo being live and light materials and regarded as the major, while sand, brick and tile belonged to the minor group of materials. Permanent materials such as hard stones and rocks were mainly used in houses of the dead (graves). Wood and bamboo were popularly used for residences because they reflected man's short life on earth; alive but impermanent, and therefore precious.

The second point is of particular interest to us. The reasons for the generally horizontal enlargement of Chinese courtyard houses can partly be explained from the viewpoint of practical needs. As Chinese houses were constructed of relatively impermanent materials, their natural limitations placed great restrictions on the building of multi-storey houses. Moreover, there was little limit on the availability of space in China and no need for the people to live in multi-storey houses. Only when certain social or natural factors, such as those encountered by the Hakka people in Southern China (hostile surroundings and limited arable land) or by residents in Yünnan (frequent and heavy sandstorms) and Anhui (floods), were present, was it necessary to build multi-storeyed houses as the solution to their problems.

Further reasons for the horizontal enlargement system of houses lay in the wish to be part of nature. As the Chinese saw no distinction between man's world and that of nature, the courtyard house successfully embodied both within its realm. To the Chinese, the courtyard could not be separated from man's living quarters; to construct a multi-storey building would destroy the close connection between the rooms and the courtyard. In courtyard buildings (in both palaces and humble dwellings), a great advantage is that

the courtyards or gardens are an important part of the building, not separated from it (1).

Chinese houses were buit to harmonise with, and not be against Nature. Unlike some buildings in the west, Chinese architecture "did not spring suddenly out of the ground as if aiming to pierce the sky like European 'Gothic' building" (2). As Magalhaens had written three centuries ago, the west built their lodgings one storey above another while the Chinese built the same level one within another, so that the west possessed the air and the Chinese the earth (3).

The third point is intimately connected with the popular employment of a symbol system (Yang Chai Theory), which strongly dominated the planning of Chinese houses. The Chinese symbol system derived from people's cosmic sense and their view of nature. The desire to remain in harmony with nature was not only achieved by blending the architecture unobtrusively into the landscape or through the house form, but also through the building process, which had to be in tune with the natural order. The description of the natural order and symbol system will be the main theme of the next part.

---

1) See Liang Ssu-Cheng, 古建築論叢 (Essays on Traditional Architecture), (reprinted Hong Kong: Shen-Chou, 1975), p 7
2) Joseph Needham, Science and Civilisation in China, Volume 4, Part 3, p 61
3) Magalhaens, in Needham, ibid, p 63

PART 2 COSMOLOGY OF TRADITIONAL COURTYARD HOUSES - YANG CHAI THEORY

INTRODUCTION

In the second part of this thesis, I shall examine the relationship between the symbol system of traditional Chinese culture and the residences of the Chinese people. Many methods of choosing an ideal area of habitation (houses, settlements, cities) by different civilisations are connected to the traditional beliefs of heavenly gods or natural powers by way of systems of symbols.

The symbol system in a culture changed and is rectified with the passage of time and through social revision. In ancient times, the power of religion was so much stronger than any other social power that the symbol system of the time was mainly religiously oriented.

In religion, the abstract phenomena are religious belief or myth, while practical behaviour takes the form of religious practice, ritual or ceremony. Both belief and ceremony are symbolic procedures and exist in the symbol system. The former can be regarded as verbal symbols derived from the rationalised basic need of human beings, and the latter as symbolic acts derived from man's dramatisation of his basic needs (1).

When people's beliefs and values were reflected in the arrangement or design of their residences, they regarded their house as the temple in which ancestral spirits dwelled when they came to visit (2), or as enshrining the hearth-fire sacred to their god (3).

---

1) Chapple E.D. and Coon C.S., Principles of Anthropology (New York, 1942)
2) such as the Suora of Eastern India (House as Temple)
3) such as the Ainu people in Japan and their Kamui Fuchi (god)

In prehistoric China, the shaping of a village not only provided the villagers with a residence, but also with a place of protection for the ancestral spirits or Shen Tsu (神主) of the villagers. The worship of ancestors was a guarantee of propagation and blessing.

During the Yang Shao Culture (仰韶文化), a matriarchal tribe in prehistoric China, the farmers always built an earthen mound representing the Earthly God, in the she (社), their area of worship, at the centre of the village. The tree of she on the mound was the object of worship in the fixed, annual ceremony (年祭) (1), when people asked for the blessing for the whole village (2).

By the time of the patriarchal Lung Shan Culture (龍山文化), ancestral worship in people's residences had also become a crucial ceremony, similar to the she worship in the villages (3). The house became closely related to the ceremonies of ancestral and she worship, so that the main theme of house construction during that time was the house's sacredness (4). With the development of civilisation, the omnipotent power of ancient beliefs gradually declined, while other social powers advanced (e.g. politics, economics, military) and dominated the choice of location, position and design of people's residences.

Liu Shih-Chi, in his treatise on ancient cities and towns of China,

---

1) See E.R. Hughes and K.H. Hughes, Religion in China, (London : Hutchinson's University Library, 1950), p 115
2) See Max Weber, The Religion of China, (Glencoe : The Free Press, 1951), p 173
3) See Chang Kuang-Chih,中國遠古時代儀式生活的若干資料"Evidence for the Ritual Life in Prehistoric China" in 中研院民族研究所集刊 Bulletin of the Institute of Ethnology Academia Sinica, No. 9, 1960, p 266
4) See Rapoport, "On the Cultural Origins of Settlements", in Introduction to Urban Planning, edited by Antony J. Catanese & James Snyder, (McGraw Hill Book Co., 1979) p 59

noted that the formation of some cities was required to match the symbol system of the religion, which emphasised not only the centrality of the king of the state or the ruler of the city by placing his residence in the geographic centre of the city, but also the coordination of the natural and human order (1). This was characteristic of cities such as Tang Chang An (唐長安), North Sung Kai Feng (北宋開封), and Peking (北京) after 1552, but did not apply to other cities such as Lin An (臨安) of South Sung, Chuan Chou (泉州) and Shanghai (上海), whose development arose from economic necessity and afterward became political centres not connected with religion.

Two main sets of factors were taken into consideration in choosing the proper location of any planned city. First were the practical factors regarding the sufficient supply of food and water, degree of protection provided by the natural landform, the accessibility of the site, and finally, the distance between the area of production and the market. The second consideration was concerned with concepts of religious and popular beliefs, including for example, the past history of a site, whether it was auspicious or whether it was covered by the shadow of violence and death (2).

These two complementary sets of factors alternately dominated the

---

1) See Liu Shih-Chi, 城郭市廛－城市的機能，特徵及其模型 (City Walls and Business District- The Function, Characteristics and Model of Cities) in 中國文化新論 (New Treatise on Chinese Culture), Volume on Economics. (Taipei, Lien-Ching, 1982, pp 310-311
2) Much emphasis was placed on auspicious names of cities. The names of more than 80 Chinese local capitals included the character Yang (陽), representing brightness, while fewer than 10 cities had the character Yin (陰) meaning darkness. See Chang Sen Dou, "The Morphology of Walled Capitals", in G. William Skinner, The City in Late Imperial China, (Stanford: Stanford University Press, 1977), p 87

process of city planning in China. It has been suggested that a Chinese city could be regarded as a complex of military concerns, politics, business, and religion, but each was shown in varying proportions at different times. That is to say, religious considerations and those related to their cosmic view were less dominant in the planning system of later cities than in earlier ones (1).

A similar situation applied to small-scale house building in China. An ancient but clear system of choosing the proper location and design for a Chinese house based on religious considerations, which can be found in the long record of house building, gave way to a symbol system consisting of now traditional beliefs and ideals.

In the building of Chinese house groups (cities or villages) or of individual houses (residences), the final product usually exceeded pure practical needs to also satisfy spiritual needs. The living environments the Chinese set up, shown in both archaeological evidences and written historical records, reveal their social order (practical and theoretical), cosmology, their perception of man's position in the universe and their value system.

Before we discuss the long history of Chinese domestic houses and their symbolism, we must examine the assumptions which formed the basis for this symbolism. It is necessary to introduce the following theoretical concepts and historical facts to understand the relationship between houses and their cosmology in the global body of Chinese civilisation.

Firstly, both the houses of the living and the houses of the dead

---

1) See Liu Shih-Chi, 城郭市廛 - 城市的機能特徵及其模型 (City Walls and Business District- The Function, Characteristics and Model of Cities), pp 319-322

were considered to be "residences" and followed a similar spatial concept. The only difference between them lay in the fact that the former was usually built above and the latter beneath the ground. The choosing of the proper site for both types of constructions followed strict rules of belief which were regarded as having great influence on the lives of the inhabitants and their descendants.

Secondly, the cosmology of Chinese houses contained elements drawn from the core ideology of the royal tradition, enriched at times by borrowing from the world view of the common traditions of the peasant villages. This cosmology was systematised and perpetuated through the written records of the literate elite and was accepted by other groups in society, thereby becoming the common property of the different classes.

At the same time, most artisans also applied the cosmological concepts to the building of houses. In what ways the house design was strongly influenced by this cosmology will be discussed in detail later in the thesis.

The cosmological theory of residences was, however, largely ignored in the great Chinese literary tradition. Two reasons for this shall be emphasised here:

1. <u>The influence of divination</u>

In the earlier societies of the traditional period (1), much depended on divination for the answers (2). The location of a city,

---

1) The period from the Han Dynasty (206 B.C. - A.D. 220) until the end of the Ching Dynasty (A.D. 1636-1911) is known as the traditional period
2) Divination was one of the main methods applied in the cosmicisation of ancient Chinese cities. Decisions on an auspicious site were made through divination which was performed by the ruler.

the size of a village or the layout of a domestic house was always related to cosmological theories; consequently all decisions were made according to divination.

The founder of the Sui Dynasty (隋 , A.D. 581-618) took the greatest care in choosing an auspicious site and time to build his new capital. During the process, a minister studied the ancient diagram Ho Tu (河圖) and announced the best time for starting construction, while other ministers showed that the God of Heaven accepted the king's intentions through natural phenomena acting as omens. Some used the method of "tortoise shell oracles" or "milfoil oracles", and astronomical officers took observations of the sun and the stars.

The results of the divinations were regarded as being intimately related to the quality of the site, and cities were planned accordingly. Even in the construction of a small building such as a house, except for the location, which was decided by Feng Shui (Yang Chai theory) (Part 2, see Chapter 3), divination decided the proper time for starting and ending the construction work as well as the best time for moving into the house.

These methods of divination were, however, not accepted by Confucianism. Confucius had repudiated man's attempt at revealing the secrets of the heavens and advocated merely respect and awe towards heavenly gods. His teachings emphasised the relationship between human beings in society, not the supposed will of the heavens. Therefore, written records of divination and other cosmological theories were not emphasised in the great Confucian literary tradition.

2. The nonexistence of the profession of the architect in traditional Chinese society

The profession of the "architect" as we know it today did not exist in China before the 20th century. The professions of the "ta chiang" (大將), "chiang tso" (將作), "chiang shih" (將師) or "tu chiang kung" (都將工) in traditional China all placed more emphasis on the constructional process, as planning work was mainly completed by scholars (1). In other words, the body of Chinese architecture was the product of cooperation between scholars and artisans. Although the former never directly took part in the construction work, their knowledge was vital to the building plan as well as to the layout arrangement. So Chinese architecture developed from these two directions, with the artisans continuing the techniques of their predecessors, while the scholars influenced the building plan, spatial arrangement, and style design from their cultural point of view. In this manner, both the scholars and artisans contributed in continuing the style and forms of Chinese architecture.

In the Chinese classic "Dreams of the Red Chamber" (2), a detailed description is given of the constructing process of "Ta Kuan Yuan", the house of the Chia family. In order to build an ideal and perfect house, the Chia family invited an old man named Shan Tze Yeh (山子野) to make the first plan and draw the first draft. He had much experience in the planning houses and a good knowledge of the techniques. After Shan Tze Yeh finished the drawings, the plan and spatial arrangement were modified by various scholars,

---

1) See Han Pao-Teh & Hung Wen-Hsiung, Panchiao Lin Family Compound, The Survey, Study and Restoration, p 40
2) Chinese novel by Tsao Hsüeh-Ching in the Ching Dynasty

including family members and people who were employed by the family as tutors and bookkeepers. According to the book, the master of the house, Chia Cheng (賈政), who was not used to these "vulgar" and "mundane" affairs, walked around the building site only during his leisure time, and made decisions during these visits after discussion with the scholars (1).

The Confucian view that housebuilding was "a petty skill" or "a skill with no significant value" and that "a man of virtue was not to be involved with it" was however, belied by the behaviour of the elite of later dynasties. They regarded the ideal residence as a guarantee of wealth and longevity, a belief which was accepted by all Chinese, regardless of social class (2).

These contrasting points of view help explain why the cosmological theories of residences did not receive the attention they deserved in Chinese literary tradition for their role in shaping Chinese residences.

Recent studies of domestic houses in Chinese architecture have been mainly limited to the study of building types or constructional methods, while the symbol system applied to buildings have not been discussed in much detail. The reasons for these circumstances appear to be: Firstly, material on the symbol system is not easily acquired. Secondly, a uniformity did not exist between the various schools, which often held different opinions on the importance of different aspects of the symbol system. Even within one school,

---

1) See Dream of the Red Chamber, Chapter 16
2) See Han Pao-Teh, 風水－中國人的環境架構 "A Study of Feng-Shui as a Chinese Concept of the Environment" in 建築與城鄉研究學報 Bulletin of Environmental Studies, Vol. 2, No. 1, (Taipei:National Taiwan University, 1983), p 126

contrasting opinions on the same aspect sometimes existed between separate branches (1). Thirdly, the building process of domestic houses in traditional times was not strictly uniform, and the extent to which the symbol system was applied to each individual house also varied.

By taking the symbol system as the focus of this section, I intend to answer two major questions:

1) What are the symbolic characteristics of traditional Chinese houses?

2) How was the symbol system applied in practice in the building process?

It is necessary to keep in mind during this discussion that taking the symbol system into consideration in the planning of the house was a supplementary improvement, but not an absolute requirement. With the inclusion of the symbol system, the house came closer to the ideal of the inhabitants, while its omission would render the house imperfect, but not impossible to build or inhabit. Consequently, the choice depended on the beliefs and wishes of the inhabitants and builder; and while the symbols were part of the ancient tradition, the system was modified with the passage of time.

Before turning to the aspects of the symbol system, I would like to point out several characteristics of domestic Chinese houses:

1. In the building of residences, special attention was paid to the location of the ancestral hall, as it was believed that within this domestic realm, the most important element has its assigned place.

---

1) See Nan Hai Chu Jen, 堪輿學原理 (The Theory of K'an Yü), (Taipei: Chi-Wen, 1981), pp 3-6

As the spiritual centre of the house, it was to be placed at the focal point of the house compound.

2. The orientation of a building and the location of the front door was of great importance, as facing the proper direction would allow the house to receive heavenly Ch'i (See Part 2, Chapter 3). Ch'i played a crucial role in the cosmology of domestic Chinese houses in traditional ages.

3. Practical and symbolic elements which were employed in domestic Chinese houses included chao pi (照壁) or spirit wall and chien men (劍門) or arrow gate and other decorative elements containing special functions which helped distinguish man's world from that of the gods' or the ghosts' (See Part 2, Chapter 3).

4. The different ceremonies which accompanied the various steps of the building process were performed to pursue good fortune and avoid future calamity. These included: laying the foundation (墊基), placing the beams (上樑), erecting the columns (立柱), etc. (See Part 2, Chapter 1)

5. The Chinese house combined both residential and worship functions. Different ceremonies for the particular objects of worship were performed in separate points of the house. Ancestors were worshipped in the ancestral hall; the Gods of Heaven and Earth were worshipped in the courtyard, while sacrifices to wandering spirits were placed outside the doors (front, side or back doors). (See Part 2, Chapter 1)

These matters are discussed individually in Part 2 of this thesis. Next to describing the elements contained in the symbol system of Chinese houses, I shall examine the origin of the above mentioned

points and how they developed in Chinese architectural history and why they were so prevalent in domestic houses.

Part Two of the thesis is divided into four chapters. In the first section of Chapter One, I examine evidence of house building from prehistoric China to the beginning of the Three Dynasty period (Hsia, Shang and Chou), which is known as the tribal ages by Chinese historians. In the tribal society, a huge symbol system had developed which was based on the concept of sacredness and was applied to house building, consequently all inhabited territory needed to be consecrated.

The second section of Chapter One deals with the period from the middle of the Three Dynasties to the end of the Warring States (East Chou). The symbol system had developed and was modified by the social background of the time. The emphasis in the construction of a house lay in its "cosmicisation" (1), symbolising the most primitive process of creating a universe - a transformation from "chaos" to "cosmic order".

Chapter Two - after showing how the heritage of the symbol system was retained in the upheavals of imperial unification, I discuss how the ancient tradition of cosmology and house building was systemised by the Han Confucian synthesists and introduce the symbols which formed the symbol system.

Chapter Three deals with the importance of the cosmic framework which became the invisible structure of Chinese houses, and the concept of Ch'i and its importance to house building. The house was not only occupied by its inhabitants, but also by Ch'i. I also

---

1) The word "cosmicise" was used by Arthur Wright in "Symbolism and Function", in Journal of Asian Studies, August 1965, p 670

examine the modifications in house building and its theory in China during the centuries following the collapse of the Han. In this period, the usage of the symbol system led to the rise of the Yang Chai Theory. Yang Chai theory taught people how to build their house as an ideal residence. A procedure based on this theory will be introduced in this chapter.

CHAPTER 1 The symbol system in prehistoric China and during the period of the formation of states

2.1.1. Symbol system related to rituals and spatial arrangement in prehistoric China

The idea of sacredness influenced the genesis of domestic houses in prehistoric China. When roaming tribes decided to settle at one place permanently, the chief of the tribe sent the members in search of an ideal and fertile land, i.e. suited for agriculture, close to rivers or stream courses but without the danger of flooding. These conditions were usually found on hillsides near rivers and streams (1).

Before deciding whether to settle on such land, its suitability was decided by divination. An impressive and solemn ceremony was then held by the chief before his people to consecrate the land on which the people were to settle (2).

3.1.1.1. The "large house" as the centre of the tribe

The dwellings constructed within this sacred territory can be divided into three types: dwellings for individuals, dwellings for couples and the "large house". The "large house" was located at the centre of the settlement, surrounded by the smaller dwellings

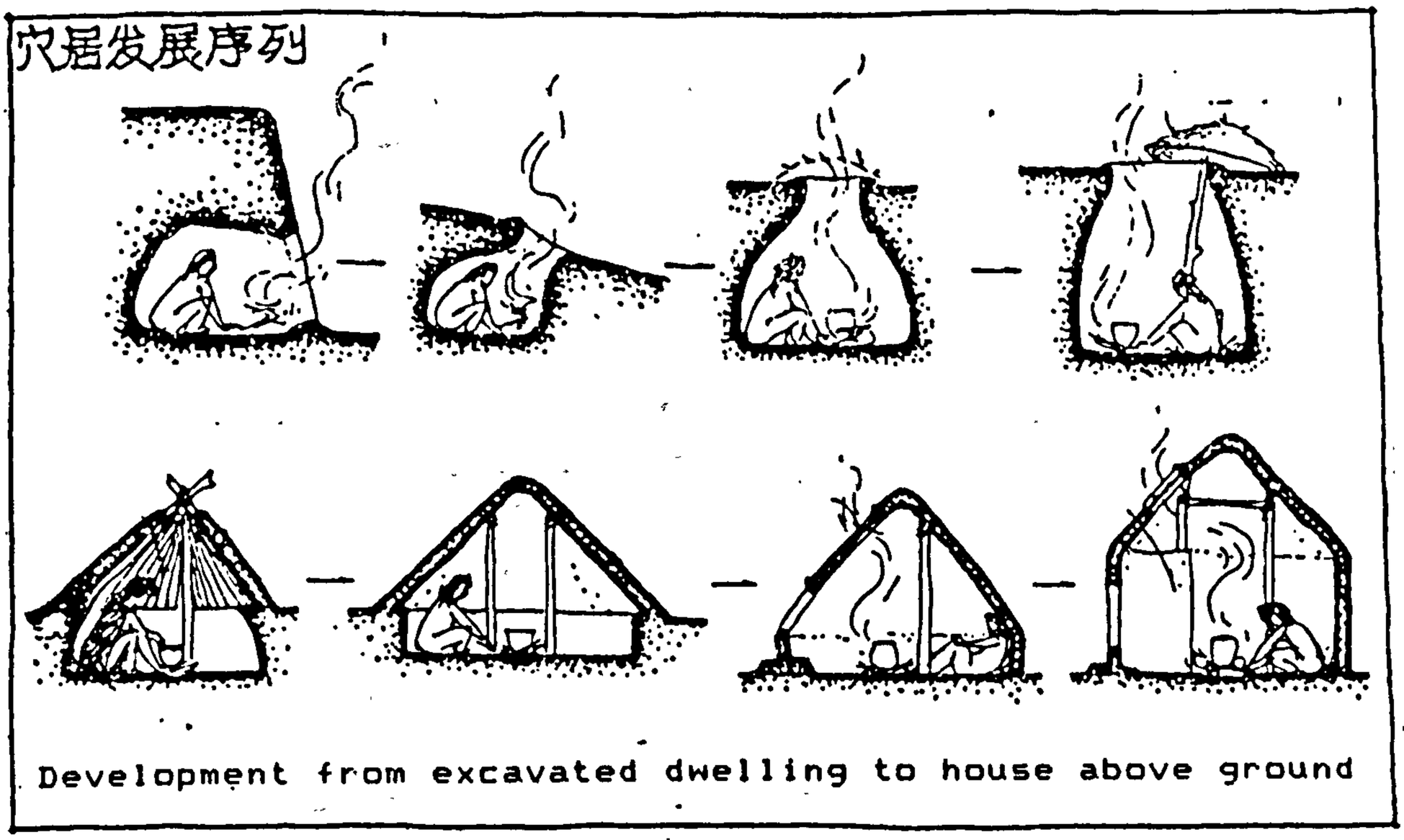
---

1) See Yang Hung-Hsün, 中國早期建築之發展 "Development of Architecture in Early China" in 建築歷史與理論 Corpus of Architectural History and Theory, Vol. 1, (Kiangsu:Jen-Ming, 1980), p 113

2) For example, the people of Chou had been nomads until Ku-Kung-Tan-Fu found an auspicious land in present day Shensi, and after receiving the blessing of their God through divination, his people then settled on the land. See Shih Ching 詩經 (Book of Odes), collection of court and folk songs from the various feudal states of China during the early part of the Chou Dynasty

of other tribe members. These smaller houses were either excavated dwellings in the ground or "semi-excavated" dwellings which had a constructed roof above the ground. See Figure 2-1-1.

Figure 2-1-1 The development of excavated and semi-excavated dwellings (Yang Hung-Hsün, 1980, p 116)

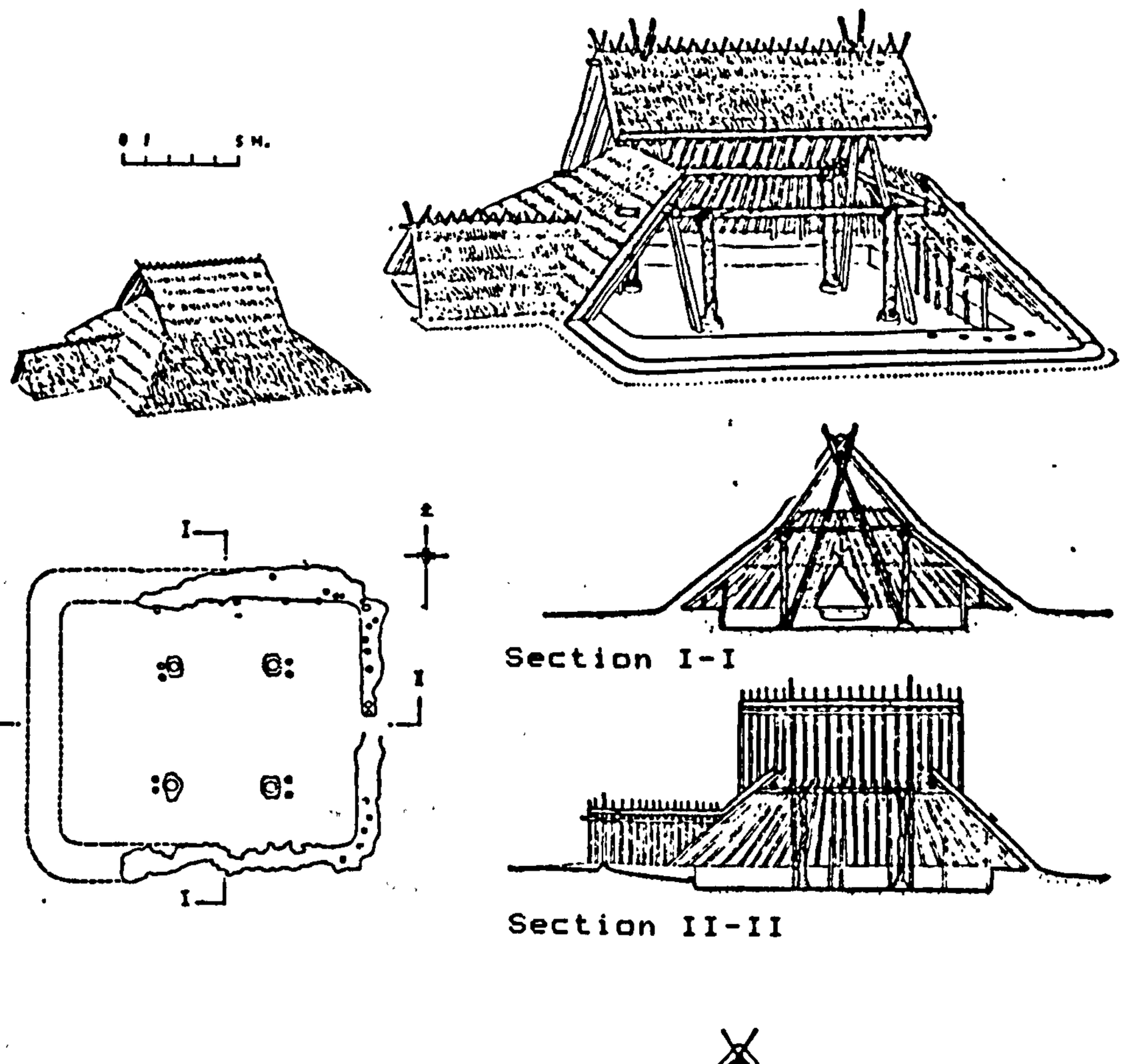


The "large house" was built above ground and fulfilled mainly social functions. Apart from being the residence of the tribe leader, it also provided living quarters for tribe members who could not work independently, such as the old or the sick, and all children. The large house was also the meeting place for important events as the locality where religious ceremonies were performed. Because of the special functions of the "large house", it was both physically and spiritually the centre of the settlement (1). See Figure 2-1-2.

---

1) The functions of the large house are described in The Museum of Panpo in Sian, 陕西臨潼姜寨遺址第4-11次發掘紀要 (The 4th-11th Documentation of Excavations in Chiangchai Remains of Lingtung in Shensi) in 考古與文物 (Archaeology and Cultural Relics), 1980, Vol. 3, p 77; Yen Wen-Ming and Kung Chi-Ming, 從姜寨早期村落布局探討其居民的社會組織結構 (Study of Social Structure based on Early Village Settlements in Chiangchai) in 考古與文物 (Archaeology and Cultural Relics), 1981, p 68

Figure 2-1-2 Reconstruction of two large houses in the Settlement in Panpo Village, Shensi Province (Liu Tun-Chen, 1980, p 25)



The building itself was constructed with better materials and was more complicated in structure than all other dwellings (1). The construction of the "large house" was carried out with the greatest care, accompanied by different rituals and divinations during the various stages of construction. During the laying of the base, animals and sometimes even human beings were killed as sacrifices to show the tribe's sincerety. The tribe also prayed for a smooth building process as well as good health and virtuousness for the tribe leader (2).

The path to the "large house" and its doorway were wider than those of all other dwellings, and a huge awning was placed above the front door. The house was bare on the inside except for columns to support the roof; a cooking pit in the ground was surrounded by a "terrace" 10 cm above the ground. When the pit was used for cooking, the terrace acted as the pantry; when the pit was used to communicate with the gods during worship ceremonies, sacrifices were placed on the terrace. In this manner, the "large house" fulfilled both ritual and residential functions, and symbolised the centre of the tribe (3).

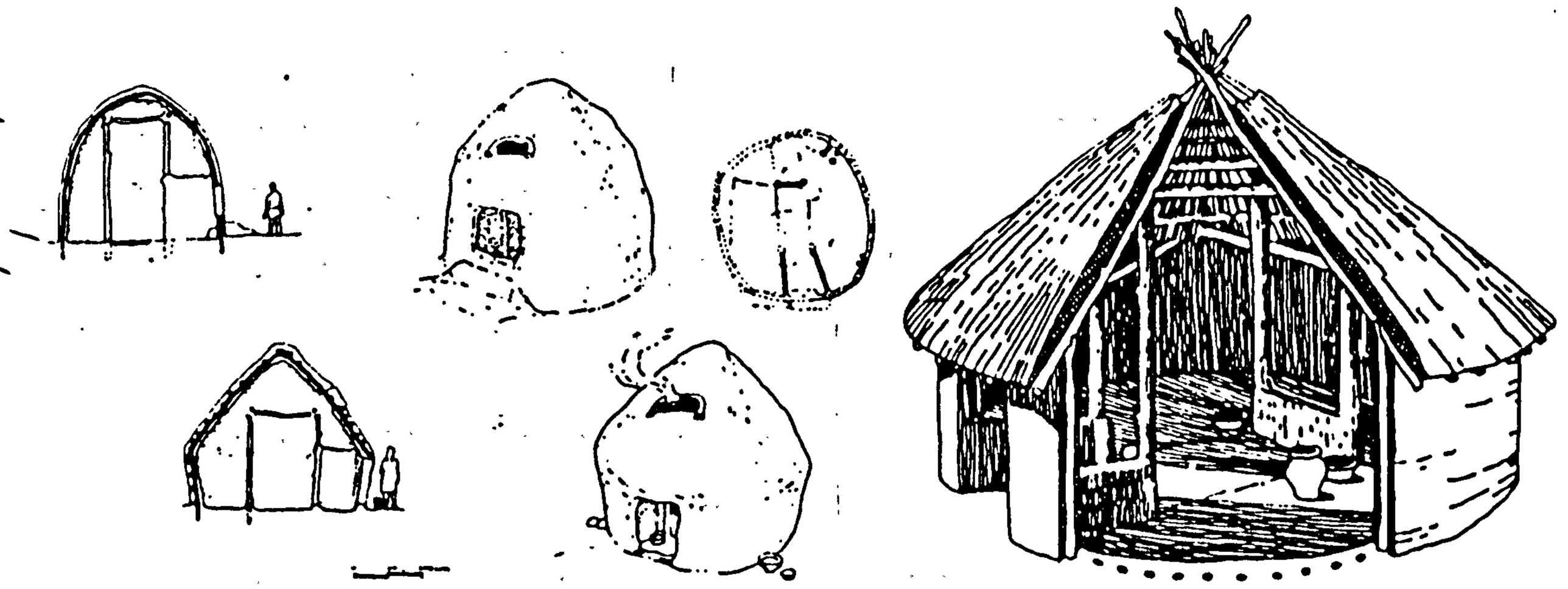
The small dwellings had simpler structures and were situated in concentric circles around and facing the "large house". In both the excavated and semi-excavated dwellings, a square entrance was flanked by two walls (cf. "Yin Au" or secret spaces in Part 1, p 75) and a cooking pit at the centre of the dwelling was surrounded

---

1) See Yang Hung-Hsün, "Development of Architecture in Early China" p 118
2) See Museum of Panpo in Sian, 西安半坡 (Sian Panpo), (Peking: Wen Wu, 1963), pp 1-42
3) See Yang Hung-Hsün, "Development of Architecture in Early China" p 118

by vertical columns supporting the roof. A small hole in the roof directly above the pit provided for ventilation and opened to the sky. When the inhabitants cooked or worshipped, the smoke drifted out through this opening (1). See Figure 2-1-3.

Figure 2-1-3 Reconstruction of prehistoric dwelling (Lin Hui-Ch'eng, 1981, p 22)



The construction of these dwellings is worth our attention. According to the conclusions drawn by archaeologists, (2) the building process of a semi-excavated dwelling was as follows:
The foundation was constructed about one metre below the ground, after which were erected the wooden columns of the surrounding walls or a framework of thick columns, which were then covered with a mixture of mud and straw. Ashes, loess and branches were then spread on the roof, completing the exterior of the dwelling.

---

1) See Lin Hui-Ch'eng, 先周建築二題 (Two Aspects of Early Chou Architecture) in 建築學刊 (Bulletin of Architecture), Vol. 4, Taipei, 1981, p 20-22
2) See Lin Hui-Ch'eng, "Two Aspects of Early Chou Architecture", pp 26-28; Yang Hung-Hsün, "Development of Architecture in Early China", pp 118-119; & Group on History of Chinese Architecture, 中國建築史 (History of Chinese Architecture), (Peking : Chinese Architectural Industry Publ., 1982), pp 2-3

Next came the building of the interior walls. A fire was made to dry and indurate the floor and the roof, which completed the construction of the whole house.

The space inside the small dwelling was not functionally delimited. People stored their work tools and equipment as well as items of daily life inside the house, while their farming products were stored in a "cellar" near the house. In the night they slept on mats on the dried floor (1). Before every meal, they held a simple ceremony thanking nature's offerings, as it was forbidden to eat food which was not first placed as sacrifice to the gods. This and other worship ceremonies before main daily events became a prerequisite without which little could be undertaken (2).

Tribes residing in neighbouring areas sometimes joined either through marriage or military power to form a larger collective group. This new group perhaps contained three to five tribes, each which had their own totem (3). The "large house" of the leaders of the different tribes were no longer located at the physical centre of the territory; the centre was now an open space (4). At the centre of the open space a sacred wooden tablet of their guardian god (神主) was placed above an earthen platform, on which were also planted trees (5).

---

1) See History Dept., Peking University, 商周考古 (Archaeology from the Shang and Chou Dynasties), (Peking: Wen Wu, 1979), pp 73-75
2) See Ho Wai-Lu, 中國古代社會史論 (History of Ancient Chinese Society), (Hong Kong: Joint Publ., 1979), Chap. 3; and Hung Te-Hsien, "Ceremonies in Chinese History", pp 365-367
3) See Li Che-Kang, 社與圖騰 (She and Totem) in 東方雜誌 (Tung Fang Journal), Vol. 32, No. 13, Shanghai, 1934, pp 210-220
4) See Yen Wen-Ming and Kung Chi-Ming, "Study of Social Structure based on Early Village Settlements in Chiangchai", p 64
5) Both the earthen platform and trees were the crucial elements of she. See Li Che-Kang, (She and Totem) pp 223-224

During large gatherings of the tribes a "prayer" fire was lit at the centre of the open space directly in front of the symbol of the "guardian god". At the same time, sacrifices in the shape of dogs, cows, sheep, pigs and sometimes even human beings were offered to the guardian god during the ceremony (1).

A defensive ditch surrounding the territory inhabited by the tribes protected the people from attacks by animals or enemies (2). A wooden fence or stockade was erected on the inner side of the ditch, as were small houses acting as "guard stations" at certain fixed points, usually next to entrances to the settlement (3). The defensive ability was strengthened by the control of the entrance and the tower of the "guard stations" which allowed the guards a better view of the outside surroundings.

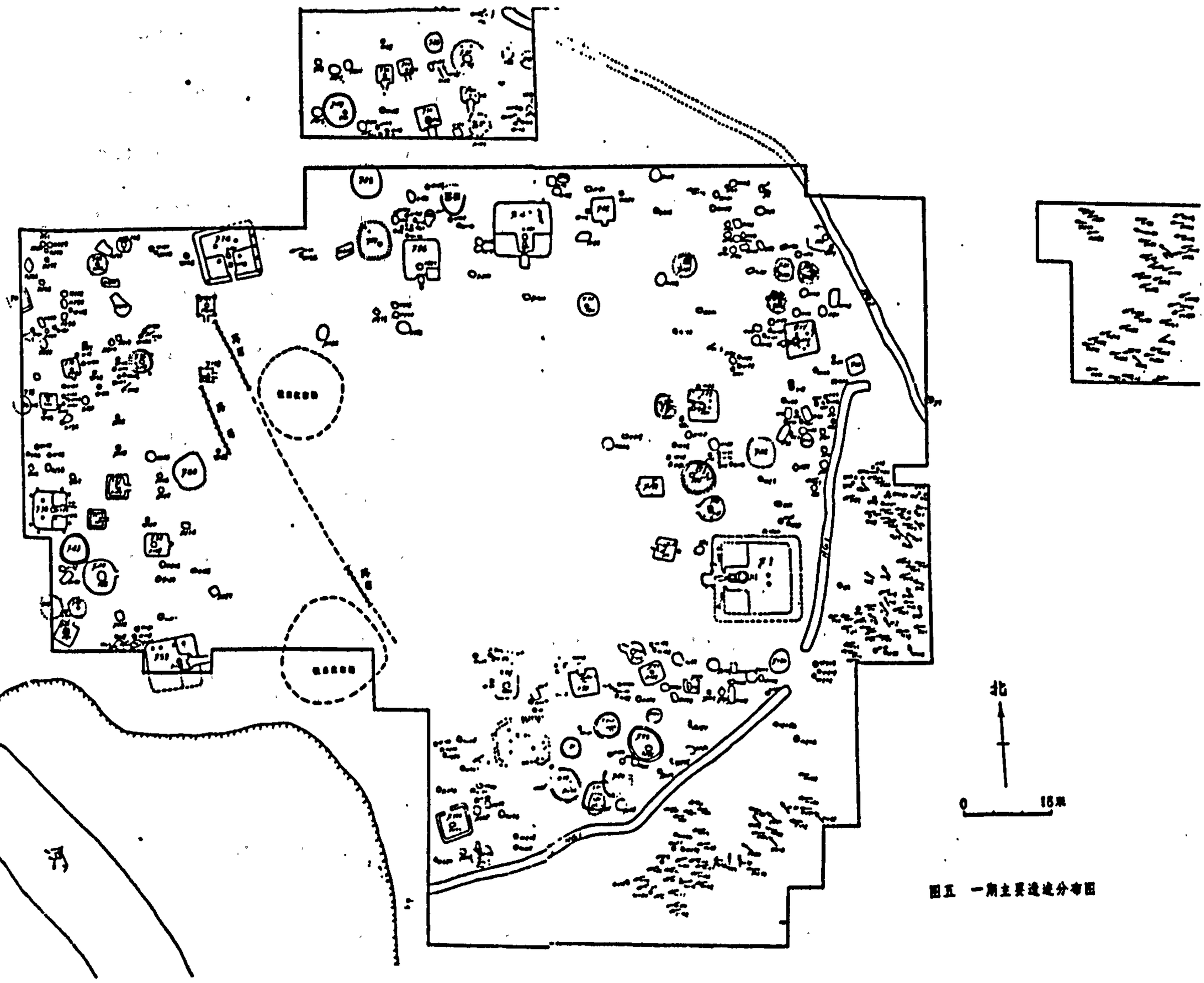
The ideas of "eternal spirit" and "world after death" were popularly accepted by the people of this time (4). Upon the death of tribe members, their bodies were buried in a burial ground outside of the surrounding ditch, with their heads facing the centre of the settlement (5). See Fig. 2-1-4.

It was believed that the burial area belonged to the dead; although the dead were now mere "spirits", they were considered to lead the same lives of eating, drinking, dressing and moving as the living.

---

1) In ancient China, the ceremony with a fire at centre of people's gathering was called Ting liao (torch ceremony)
2) See Yen Wen-Ming and Kung Chi-Ming, "Study of Social Structure Based on Early Village Settlements in Chiangchai", 1981, p 64
3) According to the remains, there were five guard stations. ibid.
4) See Shao Ping, 略論西安半坡墓地發現的割体葬俗 (A Discussion on the Special Burial Ceremony Found in Sian Panpo) in 考古與文物 (Archaeology and Cultural Relics), 1980, No. 4, pp 73-75
5) In the figure, there is a collective burial area to the north-east of the site.

Figure 2-1-4 An early joint settlement in Chiang Tsai, Shensi (Kao Ku and Wen Wu, (Archaeology and Cultural Relics,) 1981, Vol. 1, p 66)



However, they differed in that they were able to bring calamity to the world of the living (1). People prevented the intrusion of the spirits into their world; likewise they avoided unnecessarily entering the burial area. The ditch surrounding the settlement delimited the world of the living from that of the dead. The area inside the ditch was considered sacred and the world outside chaotic, not suitable for the living to reside (2).

Based on existing archaeological findings, a standard pattern of life in prehistoric China can be constructed. In this standard pattern, several crucial points in the symbol systems should be emphasised. Some points related to rituals are:

1. Divination for an auspicious site to settle on guaranteed the people a better life.

2. The construction of dwellings was accompanied by different rituals and divinations during the various stages which helped create a perfect residence.

3. Both the ventilating hole in the dwellings and the central open space contained the function of sending up man's messages (smoke) to the guardian god.

Other points related to the spatial arrangement are:

1. The "large house" of the tribe or the tablet of the guardian god in a collective settlement represented the spiritual centre of the

---

1) See Chu Tien-Shun, Study on Ancient Chinese Religions, (Shanghai : Jen-Ming, 1982), pp 181-185; and Shao Ping, "A Discussion on the Special Burial Ceremony Found in Sian Panpo", pp 73-75
2) For example, in the remains of early settlements in Chiangchai, a 5 - 6 metre wide ditch separated the burial area from the settlement. See Yen Wen-Ming and Kung Chi-Ming, "Study of Social Structure based on Early Village Settlements in Chiangchai", p 63

group.

2. The world of the living and the world of the dead were clearly delimited. The former was considered "orderly" and the latter "chaotic".

3. Each dwelling contained both residential and worship functions.

2.1.2. Symbol systems of rituals related to housebuilding during the formation of states

The transition from a society of tribes to that of a state took place in China during the early stage of the Three Dynasties (Hsia, Shang and Chou) (1). Incessant fighting between the tribes destroyed the traditional tribal structure, leading to the formation of states by the victors (2).

During the course of change, the religious factor had the strongest influence and controlled this social development. The new states were each formed by different tribes which were related to each other in one of the following two ways: first was the union of a "mother tribe" with small tribes which had originally branched out, but which still worshipped the same "guardian god" as the mother tribe to show the unity of their blood-relationship. This relationship was likened to that between the branches and the trunk of a tree. The other situation was that of a large tribe "absorbing" smaller tribes, which were then forced to accept and worship the

---

1) The Hsia Dynasty (2000-1600 B.C.) was also known as "Ten thousand states", the Shang Dynasty consisted of over 3000 states, while the Chou Dynasty had over 1000 states. See Ho Wai-Lu, History of Ancient Chinese Society, Chapter 5

2) See Tu Cheng-Sheng, 華路藍縷-從村落到國家 (From Village to State), in 中國文化新論 (New Treatise on Chinese Culture), Volume on Origins, (Taipei:Lien Ching, 1982), pp 49-50

guardian god of the large tribe (1). The two types of states differed in that the members of the former were blood related while those of the latter were not, but were similar in that all members of the state shared the same religion. Only through the worship of the same Guardian God was the formation of a state by different tribes possible.

With the appearance of states came a strict class system in both the Shang and Chou Dynasies, consisting of three main groups: 1. the ruling class, 2. slave owners and 3. slaves and farmers (2).

Another change in the lives of the people after the formation of states was the difference in their ceremonies of worship. In tribal societies, religious worship had been simple and popular, while in the new society, the emphasis on religious power led to the erection of the temple of the state which was closed to the lower farmers and slaves. The ritual of worship in the temple was held by members of the higher classes - ruling class and slave owners; consequently, slaves and farmers were limited to certain objects of worship in the ceremonies they were allowed to perform (3).

It should be mentioned that during the Shang Dynasty, it was believed that the universe was filled with gods and spirits and other powers which could be appeased by man's worship and sacrifices. Their serious attitude toward worshipping divinities and

---

1) Li Che-Kang, "She and Totem" in Tung Fang Journal, Vol. 32, No. 13, (Shanghai, 1934), p 220
2) History Dept., Peking University, Archaeology from the Shang and Chou Dynasties, p 28 and p 184
3) The rulers of the Shang and Chou Dynasties believed that they were God's representative on earth and that the lowest class could only communicate with God through the ruler and his ancestors. See Chien Mu, 中國文化史導論 (Introduction to Chinese Cultural History), (Taipei: Chengchung, 1975), p 38

spirits can be seen in the passage from Li Chi (1), which states : The people of Yin (Shang) respected their gods; the king led his people in paying sacrifice to gods and spirits, after which Li was performed (殷人尊神率民以事神先鬼而後禮). On writings inscribed on oracle bones (甲骨卜辭), we find that the Shang people lived in a world of religious wishes and fears. The god they most honoured was was Ti (帝) (2), who controlled the annual harvest in autumn and military affairs. "Spirits" were people's ancestors who brought luck or harm to their descendants.

At this time, various specialists who made different forms of prophecies and interpreted omens emerged. They mainly worked for the king and were known as ritualists, diviners (by the tortoise and by the milfoil), sorcerers, exorxists and astrologers (3). Upon the death of each king, his spirit was believed to enter the realm of "Ti", the highest God. The new king, being a descendant of the old, was the only person who was able to communicate with the dead kings through divine rituals and was the bridge between the world of man and that of the gods (4). The ritualists and other specialists who aided the king in interpreting the divinations began to enjoy more power and a higher social position than commoners.

---

1) See Li Chi (Book of Rites), Chapter on Piao Chi
2) The name of God in the Shang Dynasty was Ti, and changed to Tien in the Chou Dynasty. See Hung Te-Hsien, 歷代的祭祀 (Ceremonies in Chinese History), pp 394-395; and Chu Tien-Shun, Study on Ancient Chinese Religions, p 253
3) See Lin Chai-Chüeh, 人的自覺 (Man and his Consciousness of Self) in 中國文化新論 (New Treatise on Chinese Culture), edited by Liu Tai, Vol. on Origins, (Taipei: Lien-Ching, 1982), p 378
4) See Chien Mu, Introduction to Chinese Cultural History, p 37

2.1.2.1. The rituals of ancestral worship related to dwellings

Of the many rituals of the Shang and Chou Dynasties, two were directly related to the plane and functions of the house: ancestral worship and worship of nature. The former is considered to have greater importance and will be discussed first. The significance of ancestral worship to the people of the time led to the centrality of the places of worship in both the state and the home (1). The ancestral temple (祖廟) of the king became the focal point of the state, while the ancestral hall inside the dwelling of slave owners was likewise the focal point of the house.

We shall examine the importance of the king's ancestral temple to the state. Three characteristics of the core function of the ancestral temple according to Chang Kuang-Chih (2) and Arthur Wright (3) are:

1. The people of the Shang and Chou Dynasty believed that the king's ancestors had the power to assure good crops, timely appearance of rain and sunshine; to punish enemies and bring victory to the state. Consequently, all important events were regularly "reported" to the high ancestors at the ancestral temple and sacrifices placed.

2. When a state was destroyed by another, the conquerors often built temples to propitiate the ancestral spirits of the defeated.

3. Walled cities in the Shang and Chou Dynasties which had an

---

1) See Chu Tien-Shun, Study on Ancient Chinese Religions, p 206-215 and Hung Te-Hsien, "Ceremonies in Chinese History", p 366-379
2) See Chang Kuang-Chih, Shang Civilisation, (New Haven: Yale University Press, 1980), pp 158-163
3) See Arthur Wright, "The Cosmology of the Chinese City", in The City in Late Imperial China, ed. by William Skinner, (California :Stanford University Press, 1977), pp 39-41

ancestral temple with the tablets of former rulers were called tu or capital. The tu (都) differed from all other of less importance cities known as yi (邑); the relationship between them can be compared to that between the large house and the surrounding common dwellings during the age of settlements (1).

Archaeological excavations in present-day Honan province have revealed three ancient tu or capitals, each from a different stage of the Shang period - early, middle and late Shang (2). In each of these capitals an ancestral temple was found, and a common feature they shared was the rectangular shape of the ancestral hall built on an earthen platform.

The ancestral temple dating from the early Shang was discovered at Erh Li T'ou in Cheng Chou County, Honan Province (河南鄭州偃師二里頭) (3). It was located in the ancient city of Hsi Hao, the capital of the king Ch'eng Tang (成湯). (See Figure 2-1-5). The dotted rectangle in the diagram represents the ancestral hall of the temple, which was surrounded by corridors on all sides and opened to the outside through a gate on the southern side. The size of the ancestral hall was 350 sq. metres, while the temple grounds covered an area of 10800 sq. metres.

---

1) For a comparison on the tu and yi, see Joseph Needham, Science and Civilisation, Vol. 4, Chap. 28, p 72; and Ho Wai-Lu, History of Ancient Chinese Society, p 54. The earliest yi was a residential area enclosed by trees.
2) The Shang Dynasty occupied the areas within the present-day provinces of Honan, Hopei and Shantung. See History Dept., Peking University, Archaeology from the Shang and Chou Dynasties, p 29
3) Archaeological Research Institute, Academy of Sciences, 河南偃師二里頭發掘簡報 (Report on Discovery of Erh Li Tou, Yen Shih in Honan) in 考古 Kao Ku, May 1965, p 215; and Archaeological Research Institute, Academy of Sciences, 河南偃師二里頭早商宮殿遺址發掘簡報 (Report on Early Shang Palace at Erh Li Tou, Yen Shih in Honan) in 考古 Kao Ku April 1974, p 234

Figure 2-1-5 Ancestral Temple at Erh Li T'ou, Honan Province (History Dept., Peking University, Archaeology from the Shang and Chou Dynasties, 1979, p 25)

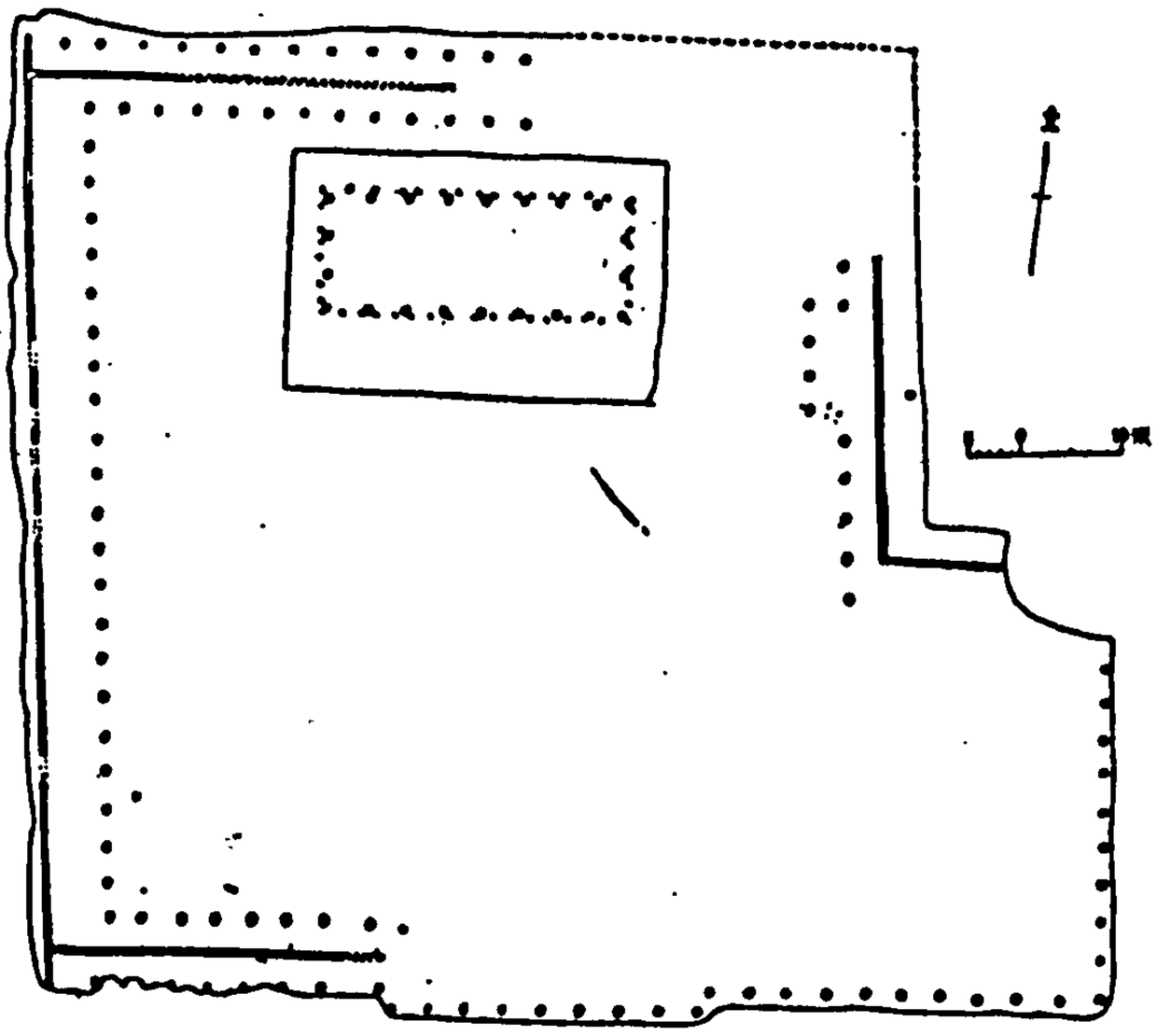
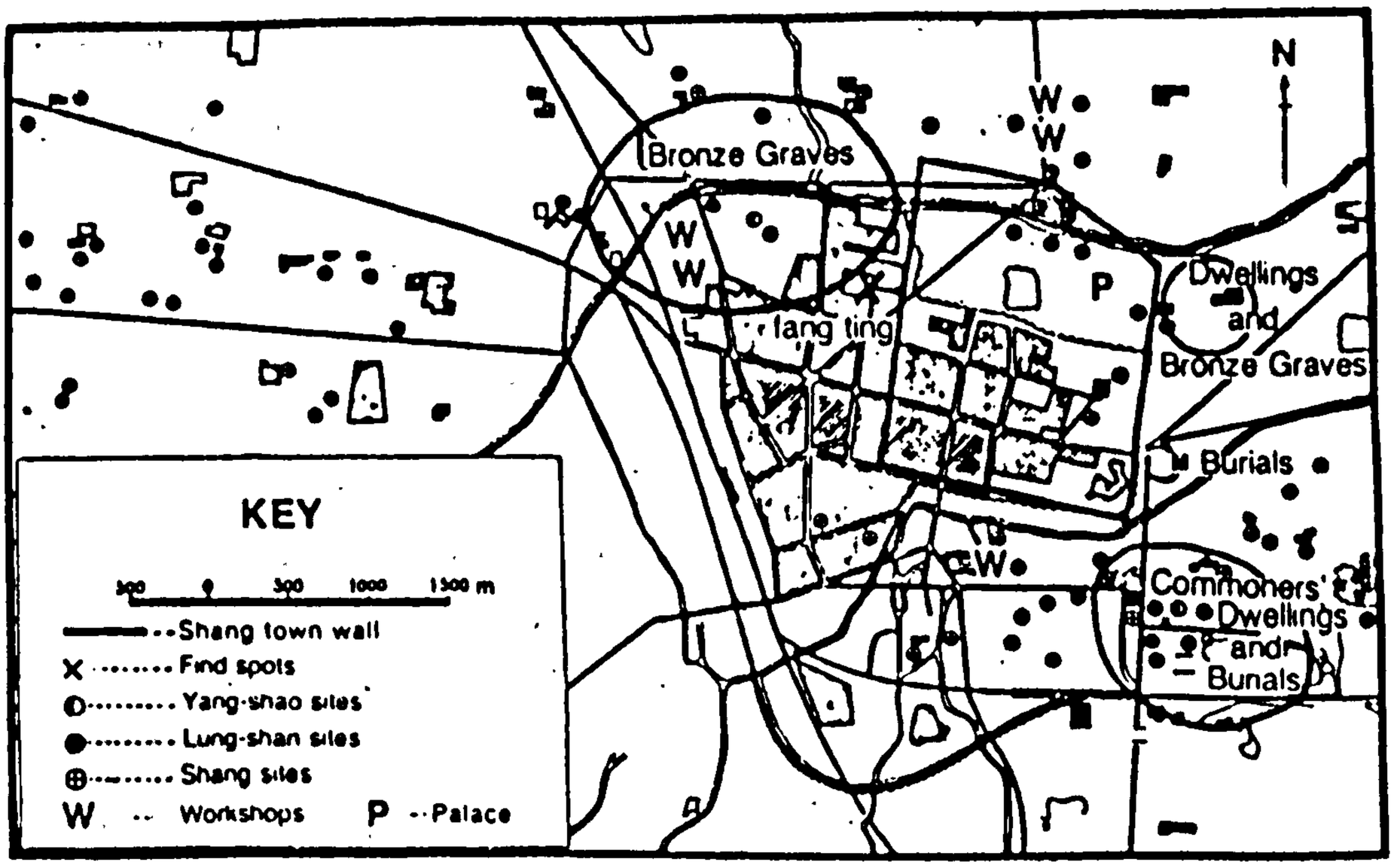


Figure 2-1-6 The Ao Capital of the Shang Dynasty (Chang Kuang-Chih, 1980 p282)



A tu of the middle Shang period was excavated in Shang Chen in Cheng Chou County, Honan Province (河南鄭州商城) (1). This was the Ao capital of the king Chung-Ting (仲丁), surrounded by a wall seven kilometres long. Several large earthen platforms situated towards the north of the capital show the location of the ancestral temple of the king (See Figure 2-1-6). The discovery of various workshops for pottery, bone objects, breweries, etc. as well as semi-excavated dwellings outside the wall of the capital indicate that rulers of the state and their servants as well as slave owners lived inside the enclosure, while slaves were limited to the outskirts of the capital.

The Yin capital found near present day Anyang in Honan Province (2) belonged to the late Shang period and covered an area of 24 sq. kilometres (See Figure 2-1-7). The palace area was divided into three sections (See Figure 2-1-8). The northern section was residential, while the central section was the temple grounds. The buildings of this section were arranged on a central north-south axis, with the main building situated at the northern end of the axis. Two doorways located on the central axis indicate the two courtyards leading to the main building, which was the ancestral hall. The southern section was built at a later date for worship purposes by subsequent kings.

---

1) Honan Provincial Museum, 鄭州商代城址試掘簡報 (Report on the Discovery of Shang City in Cheng Chou County) in 文物 Wen Wu, Jan. 1977, p 21
2) See Archaeological Research Institute, Academy of Sciences, 1958-1959 殷墟發掘簡報 (Report on Yin Remains in 1958-1959) in 考古 Kao Ku, Feb. 1961, p 67; and Archaeological Research Institute, Academy of Sciences, 1973年安陽小屯南地發掘簡報 (Report on Discovery of Hsiao Tun Nan Ti of Anyang in 1973) in 考古 Kao Ku, Jan. 1975, p 30

Figure 2-1-7 The Yin Capital of the late Shang period in present-day Honan Province (Lin Hui-Ch'eng, 1981, p 30)

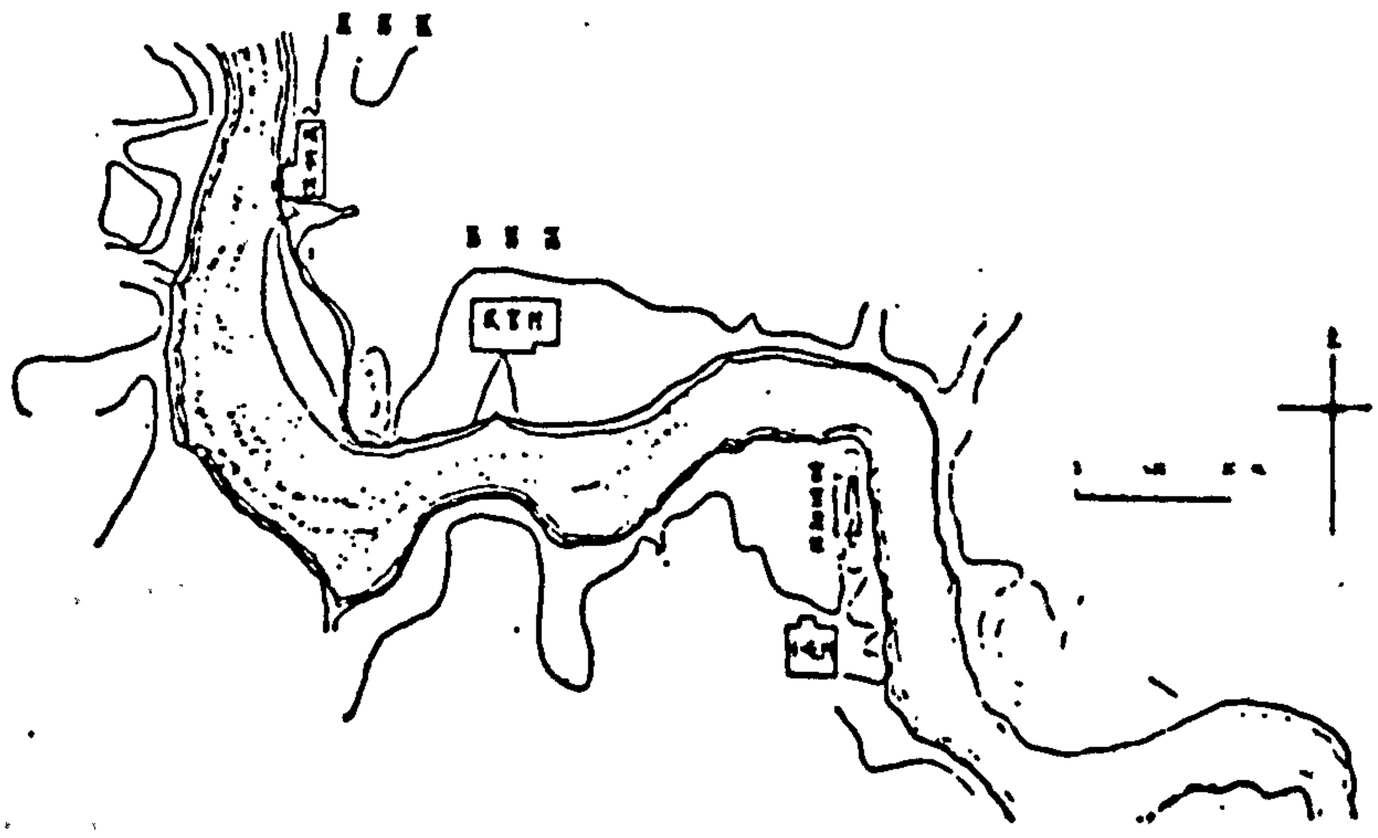
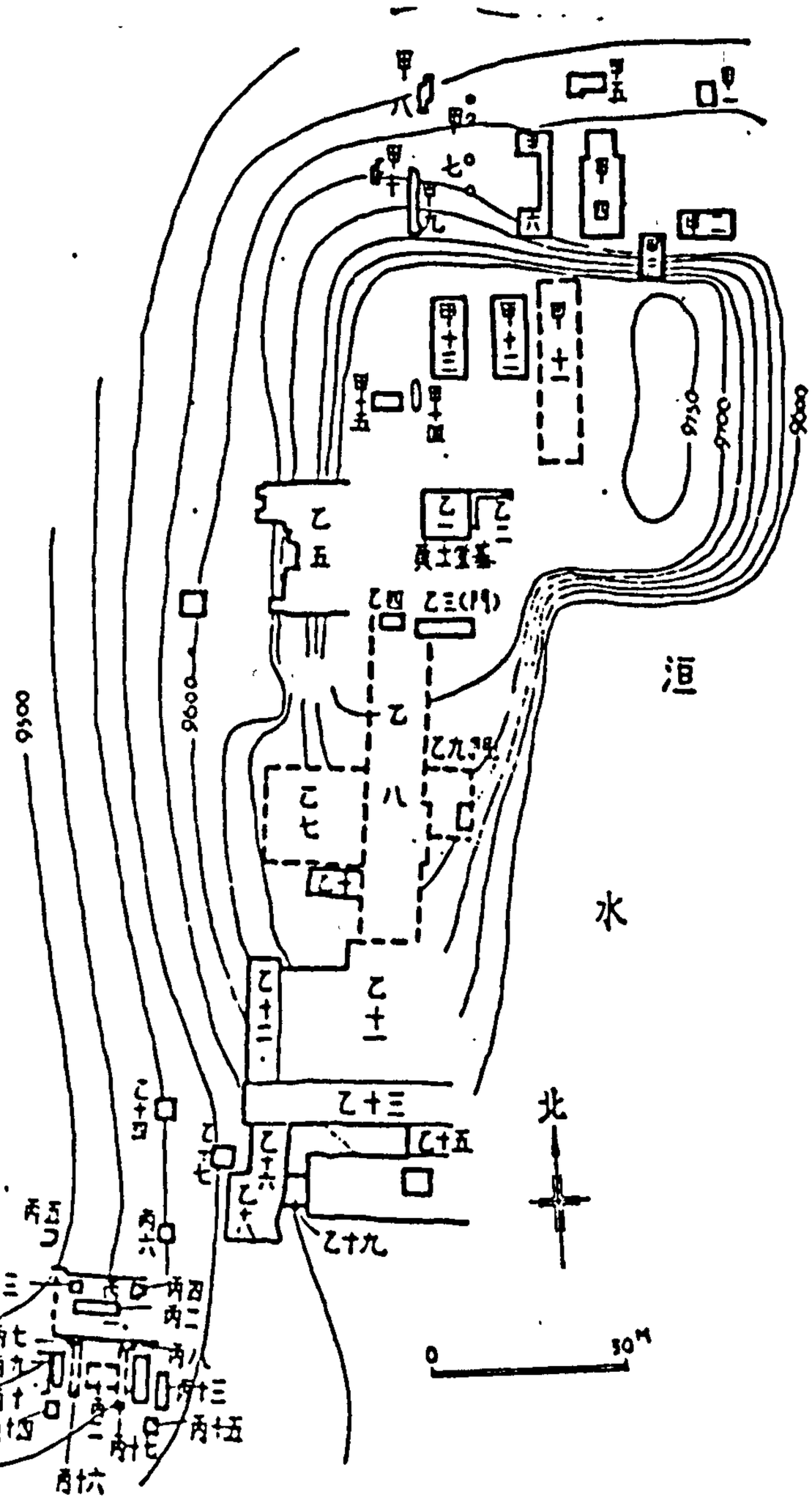


Figure 2-1-8 The palace area of the capital (Lin Hui-Ch'eng, 1981, p 30)



The three tu's described above originate from 1600 -1100 B.C. It is evident from these archaeological findings that the ancestral temple was a focal point of the state already in the Shang Dynasty.

During this period, buildings built above the ground were either houses of ruling class and of the slave owners or temples. The houses of slaves during the Late Shang and West Chou (1100-771 B.C.) were modified forms of the semi-excavated dwellings (1) (See Figure 2-1-9). As well as the different sized columns used to support the roof and a storage pit for water and food, there was always a fire pit inside the ground. This fire pit not only allowed the inhabitants to cook and seek warmth but also to worship their ancestors.

Classical literary records also reveal the importance of the ancestral hall in relation to other buildings in the state. The poem Mien in the Book of Odes says: The grandfather of the first Chou king Wen Wang led his people from their cave dwellings to the northern banks of the River Wei. The divination of the tortoise shell pronounced this site the proper place for the descendants of the Chou tribe to settle on. The tribe leader then commanded his builders to construct houses; they employed the newest techniques in erecting the most important building first - the ancestral temple. (2)

The worship of ancestors had already played a crucial role in the lives and dwellings of the Shang and Chou people. It strongly

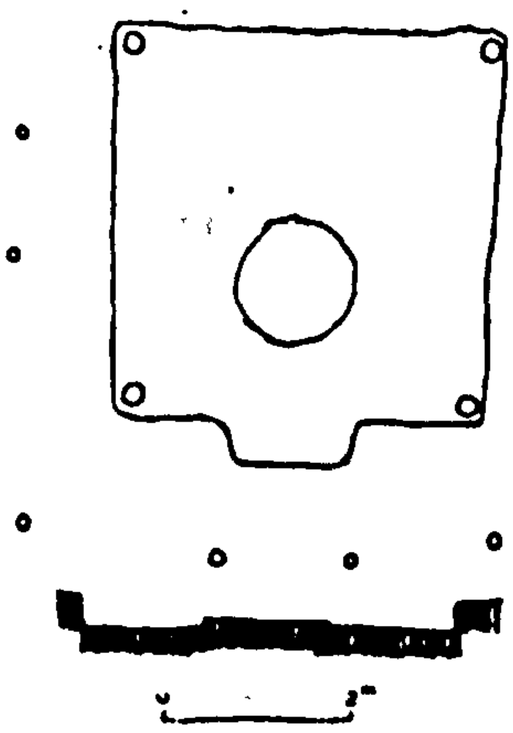
---

1) Evidence of this rectangular house form of this period are 15 semi-excavated dwellings found at Chang-Chia-P'o in Feng Hsi County in Shensi Province and five dwellings at Hsia-Pan-Wang in Ts'u County, Hopei Province.
2) See Shih Ching or Book of Odes, a collection of 305 court and folk songs from the early part of the Chou Dynasty

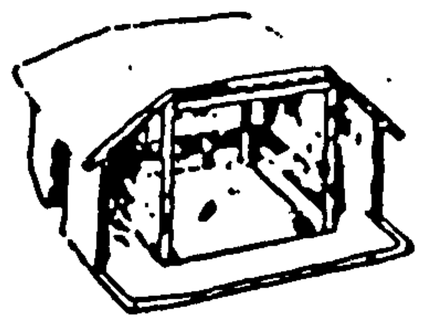
Figure 2-1-9 Modified forms of the semi-excavated dwellings

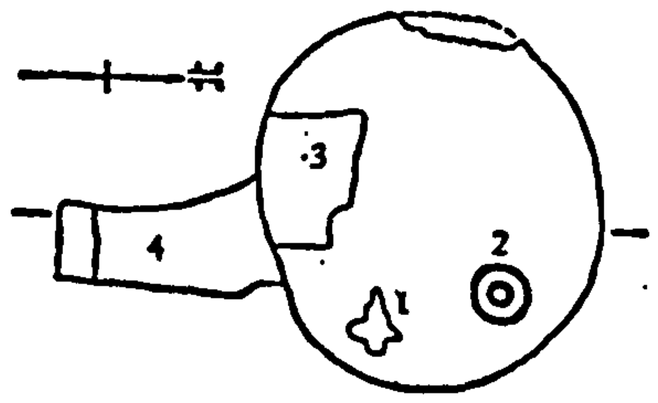
(Lin Hui-Ch'eng, 1981, p28)

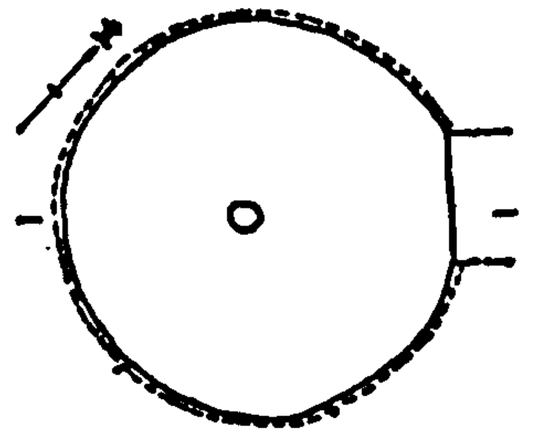
(History Dept, Peking Univ. 1979, p 188)



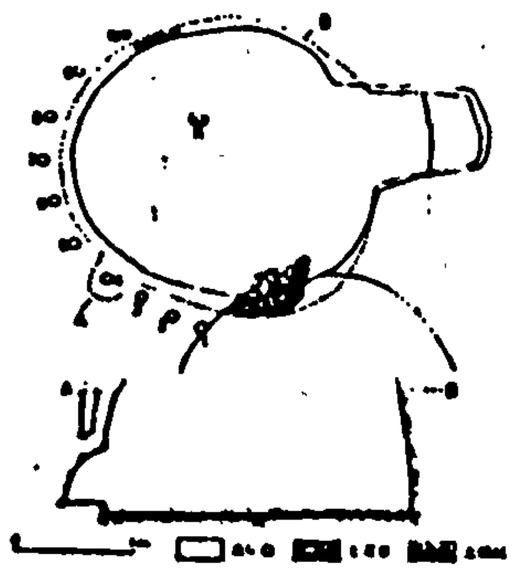
Reconstruction of square house in Ta Ho Chuang, Kansu Province

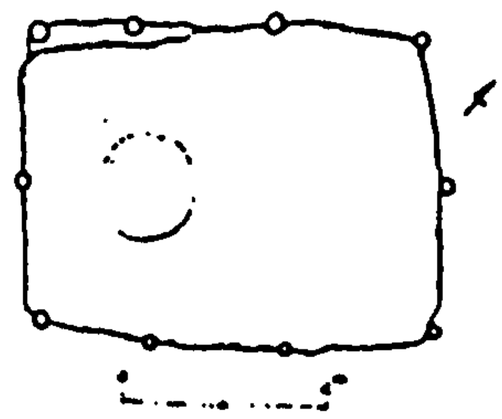


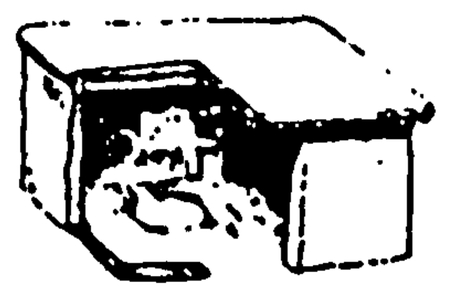




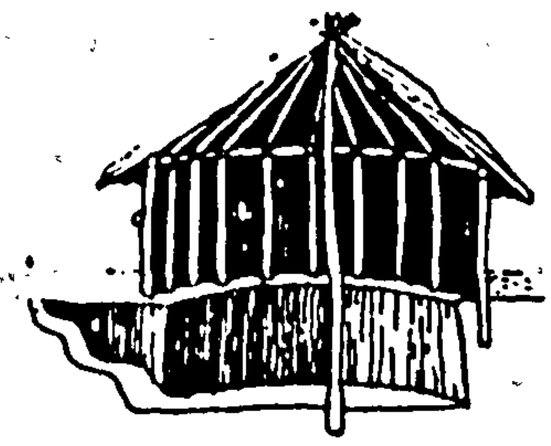
Reconstruction of round house in Changan, Shensi Province







Reconstruction of square house in Ta Ho Chuang, Kansu Province



Reconstruction of round house in Miao Ti Kou

influenced the building form of later Chinese houses in the traditional ages, in which the ancestral hall remained the focal point of the domestic house, as has been described in Part 1.

2.1.2.2. Worship of nature gods

After having decided on the Northern bank of the Wei River and having built the ancestral temple, the ancestors of the Chou people then constructed a fence separating their living area from the outside and an enclosing wall surrounding the ancestral temple. Also inside this enclosing wall an earth mound was built for the worship of nature gods.

This earth mound was the symbolic body of the other important object of worship in the Shang and Chou period - the worship of nature gods. At that time, the main objects of worship were the gods of heaven and earth. The earth gods consisted of the mountain god, river god and most important, the local god. Next to the Supreme God Ti, the gods of heaven included the gods of the four directions - East, South, West and North (1).

According to Ho Wai-Lu, the worship of earth gods originated from the agricultural life of the people, as the fertility of the land was regarded as in the power of the local earth god (2). Trees were planted on the earth mound to represent the place of worship of the earth god. The sacrifices offered to the earth god were to assure the security of the state, as well as to prevent future calamity.

---

1) See Chu Tien-Shun, Study on Ancient Chinese Religions, Chapters 2 & 3; and Hung Te-Hsien, "Ceremonies in Chinese History", p 379-402
2) See Ho Wai-Lu, History of Ancient Chinese Society, pp 210-214

The worship of the gods of heaven appeared at the same time as the worship of earth gods. The Supreme God was known in the Shang Dynasty as Ti, while the Chou Dynasty named him Tien (1). As the highest of all heavenly gods, his role corresponded to that of the king of the state, while the gods of the four directions could be regarded as his officials. Because of the special status of Ti, the solemn ceremonies of Ti worship were only held on certain dates at a fixed locality (2).

Ti was seen as having power over man in the following ways:

1. He watched and passed judgement over man's deeds; encouraged and rewarded virtue and punished evil.
2. He had the authority to grant leadership to the most capable successor and remove power from those unworthy of it.
3. His warnings to man showing his displeasure came as natural disasters or man-made calamity (3).

As the worship of nature gods and ancestors in the state took place within the enclosed area known as She, the She was the most protected area of the state. It can be seen from written evidence that the devastation of the She of the state represented the destruction of the whole state.

The following account taken from the book Tso Chuan (4) describes the situation in the state of Hao (亳) in the Shang Dynasty after it was defeated. The She of the state was covered by the victors,

---

1) Hung Te-Hsien, "Ceremonies in Chinese History", p 359
2) See H.G. Greel, 釋天 (Explanation of Tien) in 燕京學報 (Bulletin of Yen Ching University, No. 18, 1935, pp 59-71
3) Hung Te-Hsien, "Ceremonies in Chinese History", pp 359 - 410
4) Tso Chuan (左傳), supposedly a commentary on the Ch'un Ch'iu (春秋), and covering the same epoch, is really a general history of the China of that time. Probably written or compiled in the 3rd century B.C.

and although they did not viciously destroy it, the She lost its main function as it was no longer opened to heaven or the sun. The prayers of the people consequently went unheard by the gods (1).

A passage in the Li Chi describes the worship of nature gods: The people of the Shang and Chou Dynasties burned piles of timber on an earth mound so that the smoke could carry their wishes up to the gods of heaven. By the same token, sacrifices to the earth gods were buried in pits in the ground so that the earth gods would be able to receive them (2).

The specific requirements of the worship of heaven and earth gods enabled these ceremonies to be held at the same location. The term Ting Liao (庭燎), the ceremony in the courtyard, was frequently mentioned in the Book of Odes. It denotes the lighting of a fire at the centre of the She after sunset. This fire burned the whole night long and was extinguished during a ceremony at sunrise, after which the day's work began. This was the forerunner of the later Chiao Chi (郊祭) of the traditional period, which was the worship of Heaven and Earth in an open space outside the city. An altar was erected at a fixed location which only changed when the capital was moved, such as at the beginning of a new dynasty (3). The most famous evidence of this open ceremonial space is the Altar of Heaven and Earth to the south of the ancient city of Peking.

Both houses above ground and semi-excavated houses in the Shang and Chou Dynasties also reserved a place inside the house for worshipping the earth gods. This place of worship was known as the Chung

---

1) See Tso Chuan, Chapter on Ku-Liang 穀梁傳
2) 以天之高故燔柴於坛以地之深更廣埋于坎. See Li Chi, Chapter on Chiao T'e Hsing (郊特牲).
3) See Hung Te-Hsien, "Ceremonies in Chinese History", pp 396-398

Liu (中雷). In Li Chi we find the comment: "The Chung Liu is to the house what the She is to the state" (家主中雷，國主社) (1). Chen Hsiang-Tao studied the relationship between the Chung Liu and the development of the house in the Shang Dynasty. He found that in prehistoric China when the houses were cave or excavated dwellings, an opening was made in the roof, usually in the centre, for ventilation and to allow the penetration of light as well as for worship purposes (2). Because of this however, rain flowed into the house through the opening, leading to the origin of the name Chung Liu, which means "central drip". With the development of houses above the ground, the Chung Liu also evolved to take the shape of Yen Liu (檐雷), or "the dripping of water from the eaves". This meant that the roofs of the buildings on the four sides of a central opening slanted toward the centre so that rain-water would flow into the opening called Yen Liu.

Lin Ch'un-Sheng has suggested that the origin of the courtyard in traditional houses was the Chung Liu in excavated dwellings which later developed into the Yen Liu and central courtyard (3).

He did not however, further develop this idea in his writings. From the ceremonial point of view, this inference is an acceptable explanation for the development of early Chinese architecture. The common characteristics of all three elements - Chung Liu, Yen Liu and the central courtyard of courtyard houses - were their openings to the sky to allow the drifting of smoke to the gods of heaven, penetration of sunlight and a pit in the ground for the worship of

---

1) See Li Chi, Chapter on Chiao T'e Hsing
2) See Chen Hsiang-Tao, 五禮通考 (General Examination of Five Li), Ching Dynasty, Vol. 53
3) Lin Ch'un-Sheng, "Origin of the SHE in Ancient China", in Bulletin of the Institute of History, Academia Sinica, pp 9-10

earth gods.

2.1.2.3. Three major rituals in house building

Archaeological evidence in Erh Li Tou dating from the early Shang period shows several cases of peculiar burial methods. Some people had had their arms tied to their sides before being buried, while others lay in an upside-down position. Most of these remains were discovered under the southern wall of buildings and had been covered with earth before the wall was erected (1). According to archaeologists, these were related to rituals performed during housebuilding.

From the age of settlements to the beginning of the forming of states, ceremonies related to housebuilding tended to become more complex and concrete. In the late Shang period, these rituals could be divided into three major groups: those performed before the clearing of the site, the laying of the house foundation and the placing of the front door.

Before the clearing of the building site, human beings and dogs were sacrificed and buried around the site. For the laying of the foundation, the sacrifices extended to included cows and goats which were placed directly underneath the foundation or between two foundations. Rituals for the placing of the front door were mainly held for houses of higher ranking officials or ancestral temples. The sacrifices included dogs and servants dressed in armour, carrying spears or shields, who were buried kneeling on both sides

---

1) See Archaeological Research Institute, Academy of Sciences, "Report on Early Shang Palace at Erh Li Tou", p 238

of the door or to its front (1).

The purpose of these sacrifices was not only to appeal for the blessings of the gods, but also to consecrate the house and protect the sacred world of the residents from the entry of evil spirits (2). From the number of sacrifices offered before the construction of the buildings, we can see the importance the people of the Shang and Chou Dynasties placed on their residences. Findings have shown that for a large building, the sacrifices included one man, 30 cows, 111 goats and 78 dogs, while even a small house merited the sacrifice of one man, 10 cows, 5 goats and 21 dogs (3).

2.1.2.4. The transformation from chaos to order

Many events of prehistoric China are accounted for in the myths of the Shang and Chou Dynasties (4). The myths reveal the concept of the universe held by the people of that time, which formed an important element of the symbol systems related to their ritual behaviour.

The people of the Shang and Chou Dynasties believed that the universe was formed by Pan K'u. In the books San Wu Li Chi (三五歷記) and Shu Yi Chi (述異記), the creation of the universe is described in great detail :

> In the beginning, the universe was a black mass resembling an enormous bird. At that time, their existed neither land nor water nor the sun, moon and the stars. Inside the large bird lived a man named Pan K'u, who was confined in this strange

---

1) See History Dept., Peking University, "Archaeology from the Shang and Chou Dynasties), p 70
2) ibid
3) ibid
4) See Mao Tun, 神話研究 The Study of Myths, (Tientsin : Pai Hua Wen I Publ. Co., 1981) pp 71-75

place and could not escape. After 18 thousand years, the enormous bird suddenly divided into two; one half was light and bright and therefore ascended to become the sky, while the other half was heavy and turbid and descended to become the earth. Pan K'u was between the two and grew day by day. Everyday the sky rose by one chang (1), the land increased in thickness by one chang and Pan K'u grew by one chang. This continued for another 18 thousand years. The sky was a large blue stone vault and the earth covered by loess. When Pan K'u died, his head and four limbs turned into the five mountains and the four columns which supported the sky at the four corners. His eyes became the sun and the moon, his blood turned into rivers, his hair changed into plants and trees. The orderly world was thus born (2).

From the above passage we can see two aspects of the Shang and Chou concept of the universe:

1. The universe was formed in the shape of a man, with elements in nature corresponding to the human body. The order of the universe was only achieved after the death of Pan K'u.
2. The sky was stone vault, onto which the sun, moon and the stars were attached, shining down onto the earth. Columns on the four corners of the earth supported the sky, preventing it from collapsing.

Not long after the the universe was created, a disaster occurred which destroyed much of the universe, leading to the latter part of the mythical forming of the universe - the patching of the demolished sky by the goddess Nü Wah (女媧):

> After the disaster, the four corner columns were destroyed and the nine continents (3) rended. The sky was partly demolished, as was the earth. Fires burnt incessantly and floods covered most of the land. Fierce animals and birds preyed on the old and weak (4).

---

1) Chang - a unit of Chinese lineal measurement slightly longer than three metres
2) See T'ai Ping Yü Lan (太平御覽), Vol. 78. Encyclopedia completed in 977
3) The people of the Shang Dynasty believed that the world was formed by nine square continents, with China at the centre. See Hsing I-Tien, 中國人的天下觀 (Cosmic View of the Chinese) in 中國文化新論 (New Treatise on Chinese Culture), ed. by Liu Tan, Vol. on Origins, pp 435-446
4) See Huai Nan Tzu, Chapter on "Lan Ming Hsün" (覽冥訓)

The disaster was believed to have been caused by a large sea tortoise,

> Nü Wah patched the broken sky with five-coloured stones, killed the large sea tortoise and used its four legs to support the newly patched sky (1).
>
> In their strife for the position of the highest god Ti, the two gods who came after Nü Wah - Kung Kung and Chuan Hsu - broke Pu Chou Shan, the northwestern column supporting the sky, leading to the tilting of the sky towards the northwest. The sun, moon and stars at the centre of the sky also rolled to the northwest. A large gap appeared at one side of the earth, causing all rivers to flow into it (2).

These two passages reveal that the original form of the universe as seen by the people of the Shang Dynasty, possessed the characteristics of a "house". It is covered on the top, supported by columns on the four sides and has a floor. It contains an orderly world within, which was recreated by the goddess Nü Wah after the original destruction.

The pursuit of an orderly residential space was a main goal of the Shang people. The erection of a building was a sacred process which represented more than the construction of a shelter. From the search for a proper site to the completion of the building, ceremonies accompanied each important stage of the process, repeating symbolically Nü Wah's step-by-step reconstruction of the universe (3).

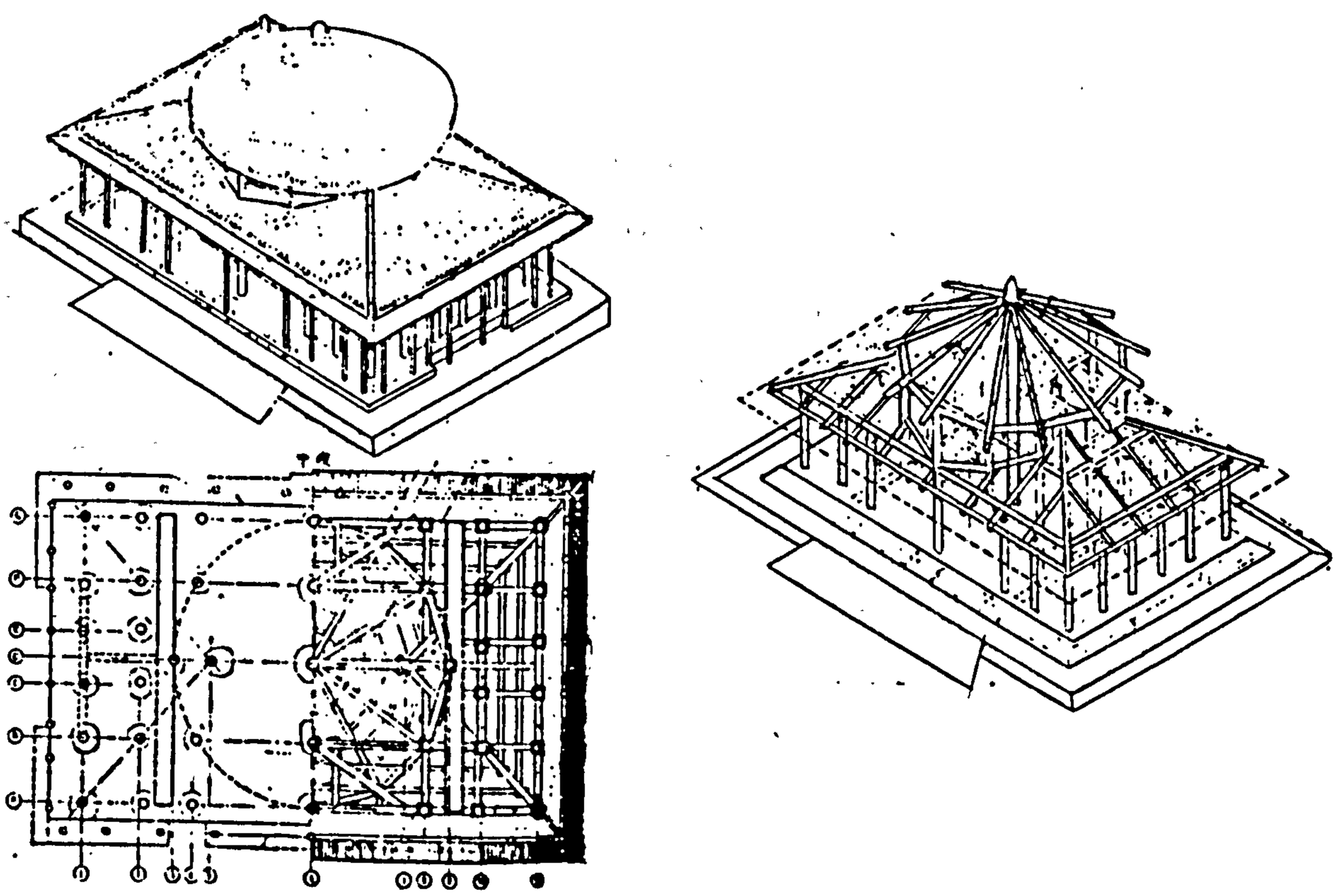
It has been suggested that the roofs of houses in the Shang Dynasty

---

1) See Huai Nan Tzu, Chapter on "Lan Ming Hsün"
2) See Huai Nan Tzu, Chapter on "T'ien Wen Hsün". According to Wen I-To, the events in this latter part of the mythical creation of the universe corresponds to the actual geographical form of China, see Wen I-To, 天問疏箋 (The Explanation of Tien Wen), (Peking: Joint Publishing Co., 1980)
3) cf. Mircea Eliade, The Sacred and the Profane, translated by Willard Trask, (New York : Harcourt Brace & World, 1959), pp 30-31

were round, representing heaven, while the lower portion of the houses were square, representing earth (cf. the ancient Chinese view of the universe in Part 2, Chapter 2) (See Figure 2-1-10). The highest point of the roof was directed at the North Star, where Ti supposedly resided, emphasising man's wish to consecrate a living environment where he could communicate with the world of the gods (1).

Figure 2-1-10 Reconstruction of house of the Shang Dynasty with round roof in Fu Feng, Shensi (Fu Hsi-Nien, 1981, p 38)



---

1) Wen I-To, 天問疏証 The Explanation of Tien Wen, (Peking: Joint Publ. Co., 1980), p 6

2.1.3. Spatial arrangement derived from the systems of rituals during the Shang and Chou Dynasties

The systems of rituals during the Shang and Chou Dynasties contained three main characteristics:

1. The king now took over the role of performing ceremonies from the tribe leader. Because of the king's special status, he was regarded as the bridge between the world of gods and the world of man. The professions of ritualists and diviners became specialised and clearly divided. The search for a proper site or correct orientation and the finding of an auspicious time for starting construction required the knowledge of different specialists.
2. The semi-excavated dwellings of the Late Shang and West Chou contained one area for both the worship of gods and the worship of ancestors, as the Chung Liu or hole in the roof opened to the sky, while sacrifices were placed in the pit in the ground directly underneath, fulfilling the requirements for both kinds of worship. When houses were built above ground in the Late Chou period, the worship areas became separated - indoors (covered) for ancestral worship, and outdoors (open to the sky) for the worship of gods.
3. The view that the construction of a house was a recreation of the universe is important to the understanding of man's wish for the separation of the sacred from the profane. The ceremonies related to various steps of construction helped consecrate man's residential space. Those ceremonies which were related to house building gained in number and complexity in the Chou Dynasty, showing the difficulty in attaining sacredness for the residence.

The rituals related to housebuilding in the Shang and Chou Dynasties were not systematised until 300 B.C. They then became part of a corpus of traditional practice which varied during the different Dynasties.

2.1.3.1. The relationship between the form of the sacred She and traditional platform-level architecture

The spatial forms derived from the systems of rituals can be divided into three groups. A most noticeable element of all Chinese architecture - whether it be public buildings or private houses - is the elevated platform it stands on. Lin Wei-Yin considered this platform to be one of the most important characteristic of Chinese architecture (1). The platform-level buildings originally appeared in the Shang and Chou Dynasties, as shown by the archaeological findings mentioned on pp 21-22 of Part 3. In the remains of the different Shang capitals, we find large rectangular earthen platforms, on which had stood buildings related to rituals of ancestral and natural worship. According to Yang Hung-Hsün, the construction of royal residences on a raised platform became popular in the East Chou Dynasty (770 - 256 B.C.), a building form which was later copied by commoners (2).

The earliest appearance of an earthen platform is on the She of the prehistoric tribal people. It arose out of the needs of the people who could no longer be satisfied with their place of worship -San- (坦) a simple clear patch of land. They consequently piled an earthen platform T'an (壇) which represented a clear object of

---

1) See Lin Wei-Yin, Principles of Wooden Structure in the Chin Dynasty, (Shanghai, 1934), p 20
2) See Yang Hung-Hsün, "Development of Architecture in Early China" pp 126-127

worship (1). Trees were planted on the earthen platform, surrounding a wooden emblem of the guardian god. The earthen platform at this time was solely used for ritual purposes (2). When tribal leaders in the Early Shang period also decided to build their large houses on earthen platforms to emphasise their leadership status, the function of the platform extended to include the show of power over subordinates (3).

Two practical reasons may explain the popularity of the earthen platform among later commoners in the East Chou period:

1. The elevated platform prevented moisture from rising up the floor and walls and at the same time allowed for better ventilation. The problem of moisture had been mentioned in Mo-Tzu, which said : "The raising of rooms can prevent moisture" (4). Moisture had been a great problem of the semi-excavated dwellings, and a serious cause of ill-health. The inhabitants of the semi-excavated dwellings had originally dried their floors by burning a fire in the pit on the ground and they later learned to tamp the earthen floor so that the hard surface would not allow the moisture to penetrate. When people started to build their houses on earthen platforms, they also first tamped each layer of the earth to destroy the capillary action and raise its ability to resist moisture transfer.

---

1) The Hsiao Ching (Classic of Filial Piety) says that a mere patch of land could not indicate the object of worship to the people, therefore the people made an earthen platform as their object of worship. See Lin Ch'un-Sheng, Origin of the She in Ancient China p 14
2) See Hung Te-Hsien, "Ceremonies in Chinese History" , pp 380-382
3) See Yang Hung-Hsün, "Some Questions Concerning the Development of Chinese Imperial Architecture as seen from the Palace Site at the Ancient City of P'an Lung in Huangp'i County, Hupei Province" in Wen Wu, No. 2, (Peking : Wen Wu Publ. Co., 1976), p 16
4) See Mo-Tzu (A collection of writings of the Mohist school which was founded by Mo-Ti 墨翟 (ca. 479-381 B.C.), Chapter Tz'u Kuo

2. The higher the platform, the greater was its defensive ability. A high platform (sometimes one to two storeys high) enabled the house to function as a lookout post, and during periods of frequent wars such as in the East Chou Dynasty, this form was popularly used as fighters surrounding the platform protected the house from attack.

The earthen platform had originally been used only in rituals of worship, but was later employed as a base for buildings both religious and residential. As such, it became a central element in traditional building construction.

Apart from the use of the platform, the strong resemblance between the front elevation of traditional Chinese architecture and the She in the age of tribes supports my view that the form of traditional architecture was strongly influenced by ancient worship rituals.

It has been inferred by architectural historians such as Chuta Ito that the archetype of traditional Chinese architecture was the palatial style architecture (1). However, if we go back one step further, we find many similarities between this style and the places of worship in prehistoric China - the She.

As mentioned before, the She contained three main elements - the earthen platform, an emblem of the guardian god and protective trees surrounding the emblem. See Figures 2-1-11.

The similarities between the two figures can be further strengthened by the following two points:

1. The bracket system of Chinese building structure can be compared

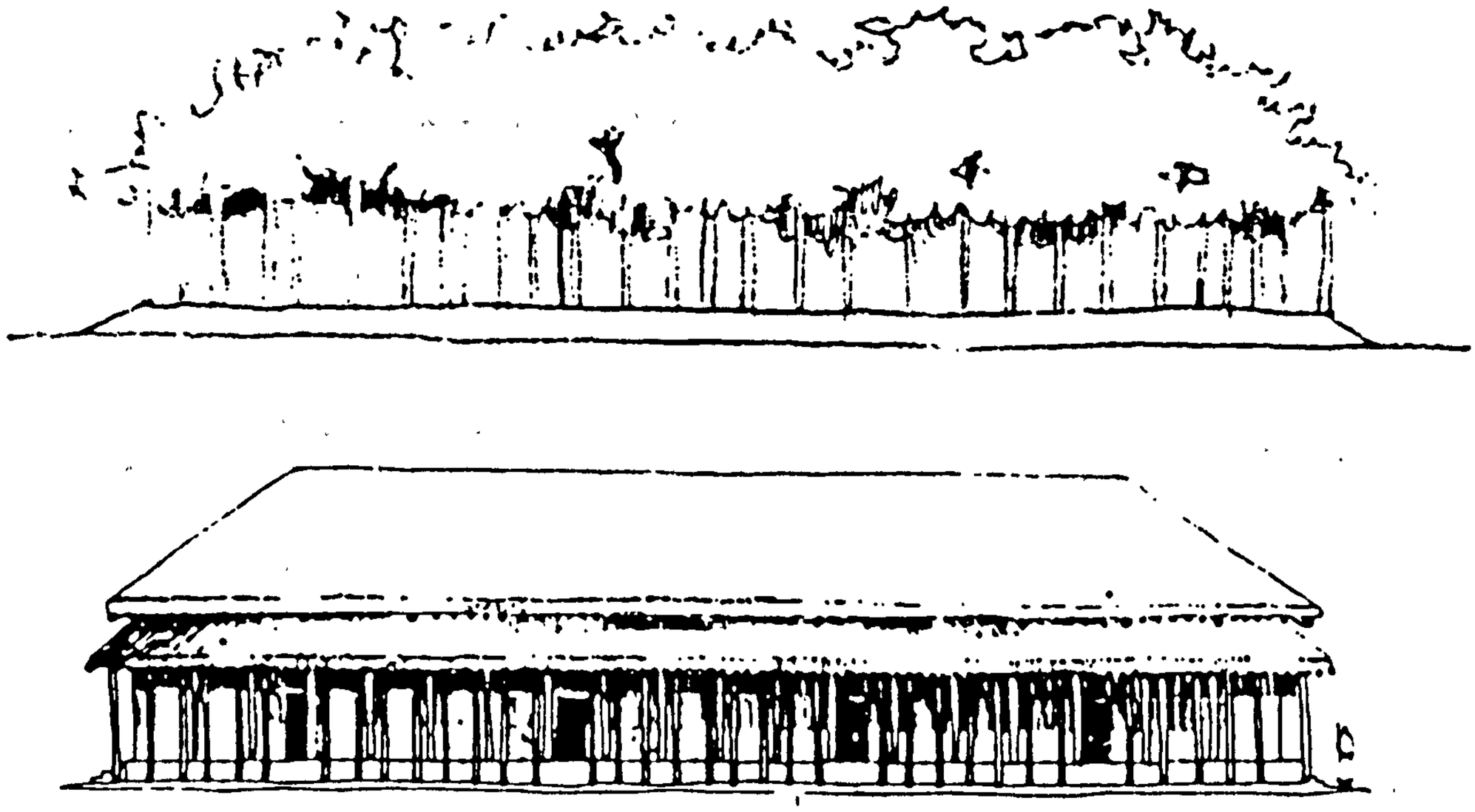
---

1) See Chuta Ito, The History of Chinese Architecture, translated by Chen Ching-Ch'uan, (Taipei : Shang-Wu Publ. Co., 1978), p 41

to the intertwining of the branches on the She trees. The bracket system may have been an imitation of the natural growth of trees (1), and similar to the growth of leaves on the branches, the Chinese roof is supported by this bracket system.

2. A passage in the Shuo Yuan (說苑) mentions one important step in the making of the She - the painting of the tribal totem on the She trees (2). This was carried over to the decoration of traditional Chinese architecture in which dragons, phoenix, or other auspicious animals were painted onto the outside columns and beams (see Part 1, Chapter 3). Both were methods of spiritual protection and further emphasise the influence of the She on traditional Chinese architecture, in which spiritual protection became a main theme.

Figure 2-1-11 a. ancient she
b. ancient house (History Dept., Peking Univ., p 70)



---

1) See Han Pao-Teh, 斗拱之起源與發展 The Origin and Development of the Bracket System, (Taichung : Tunghai University, 1972), Chapter 1

2) See Li Che-Kang, "She and Totem", pp 219-234

2.1.3.2. The use of the cosmic axis, focal point and correct orientation to maintain the cosmic order

Next to the imitation of the goddess Nü Wah's reconstruction of the universe, the people of the Shang and Chou Dynasties also developed a spatial pattern based on their cosmic model. Their cosmic model contained three main elements - cosmic axis, focal point and correct orientation - which helped maintain the cosmic order.

The Shang people divided their universe into the heavens, man's world and the world of spirits, which formed the three cosmic regions. The heavens contained all that was good and favourable, and evil or destruction did not exist. When the Shang people organised their residential spaces, the most important objective was to shape an orderly residential domain. They believed that only by taking the cosmic pattern of the heavens into consideration could they achieve order and harmony, and that an invisible axis (1) connecting the centre of the heavens (2) to the centre of the world under the heaven (3) conducted the cosmic power which enabled their microcosm to run smoothly (4).

Consequently, when the kings of Shang and Chou began constructing

---

1) The invisible axis was known as Su Chi (璿璣) or Pu Chou Mt. (不周山). See Needham, Science and Civilisation in China, Vol. 3, p 214; & Herbert Chatley, "The Heavenly Cover, A Study in Ancient Chinese Astronomy" in Observatory, No. 61, 1938, p 10.
2) The north pole was regarded by the ancient Chinese as the centre of heaven. See Chou-pi Suan-ching (Mathematical Classic on the Gnomon), Chapter 1, pp 17-18
3) The capital of the state was regarded as the centre of the world under the heaven. Chinese archaeologists found the remains of Yen Shih Erh Li Tou to be located near the area of present-day Loyang, Kaochen and Sungshan, an area which was also known as the 'the centre of earth under the heaven' (天下之中), and also named 'Earthly centre' (地中) by the Duke of Chou. See Archaeological Research Institute, "Report on Discovery of Erh Li Tou, Yen Shih in Honan".
4) See Paul Whitley, The Pivot of the Four Quarters, (Edinburgh: Edinburgh University Press, 1971), p 450

their palaces, they first located through methods of divination the central point which received the cosmic power. This central point in the house was the Yen Liu.

Next to locating the central point of the house, finding the correct orientation was the another principle step. The correct orientation was essential to houses as well as to settlements and cities (1). The locating of the four directions was important because the Shang people worshipped the gods of the sun and the moon, who they considered the spouses of the Supreme God Ti. These gods were separately named Eastern Mother (sun) and Western Mother (moon), and it was necessary to worship them in their correct direction (2).

A folksong in the Book of Odes describes how the ancestors of the Chou people located the site and orientation of their settlement:

Of old Tan-Fu the Duke
At coming of day galloped his horses,
Going west alongg the river bank.
Till he came to the foot of Mount Chhi,
Where with the lady Chiang
He came to look for a home.

The plain of Chou was very fertile.
Its celery and sow-thistle sweet as rice cakes,
"Here we will make a start; here take counsel,
Here notch our tortoise!
It says'Stop', it says 'Halt',
Build houses here.'"

So he halted; so he stopped.
And left and right he located the positions for the worship platform
He drew the boundaries of big plots and little,
He opened up the ground, he counted the acres
He found west and east according to sunrise and sunset;
Everywhere he took the task in hand. (3)

---

1) (定之方中. 揆之以日). See Shih Ching (Book of Odes).
2) Chen Meng-Chia, 殷墟卜解綜述 , Report on Oracles found in Remains of the Shang Dynasty, edited and published by Archaeological Research Institute at the Academy of Science, Peking, 1956, p 574
3) Shih Ching (Book of Odes), The Mien-Mien Song (Mao no. 237), quoted in Needham, Vol. 4, Chapter 28, pp 124-125, italics my translation

Locating the positions for the worship platforms and finding the west and east were necessary steps in obtaining the correct orientation. North was determined by taking the shadow at noon and observing the North Star at night (1).

It is evident that people's attitudes toward their houses evolved from the mere wish to consecrate man's residential environment in prehistoric China, to the desire to also "cosmicise" his living space in the Shang and Chou Dynasties, so that it could be attuned to the cosmic order.

To summarise, the three main steps towards maintaining the cosmic order were:

1. To find a central point which was connected to the centre of heaven by the cosmic axis
2. To locate east and west and correctly position the worship platforms for the sun and moon gods, and find the north-south axis from the position of the North Star.
3. To orient the house according to the four directions.

2.1.3.3. The development of an uniform house form and the achievement of a clear division between residential and worship space

Although the Shang and Chou people also regarded their "cosmicised" residence as their temple - as it was the place where they were able to communicate with the heavenly gods through rituals - the dual functions of their house - residential and worship - began at this time to find a clear spatial division. The spatial form which

---

1) (晝參諸日中之影，夜考之極星). See Chou Li (周禮), K'ao Kung Chi (考工記), Chapter on Tzu Jen (梓人)

began at this time and was continuously used throughout the traditional period showed two important characteristics:

1. The development of a rectangular house form
2. The division into a front and back section of the house, in which the front was used for worship and the back for living.

I shall start with the first point. Architectural remnants from the Shang period show four main types of houses. These were 1. the palace buildings; 2. medium to small sized houses of officers, both groups belonging to nobility and masters of slaves; 3. village houses and 4. semi-excavated dwellings, both which belonged to the working class or slaves who mainly lived outside the city (1).

All four types of house showed similar rectangular house forms. The construction of the palatial style houses and officers' houses was the same, using "wooden-framed mud walls" (木骨泥牆), and the interior was divided into several rooms by the same method. A large palatial building covered an area of about 300 - 500 sq.m., while officers houses ranged from 22 - 123 sq. m. in size (2). The palatial building could be divided into four rooms, while the houses of officers or slave owners were usually divided into an east and west room.

The semi-excavated dwellings had changed from the round, oval, square or irregularly shaped dwellings of prehistoric times to a

---

1) History Dept, Peking Univ., The Archaeology of the Shang and Chou Dynasties, p 75
2) The Shang palace of Cheng County in Honan was 346.8 sq.m. while the F1 palace of P'an Lung City in Hupei covered an area of 489 sq.m. Officers' houses outside of Cheng County in Honan were found at Tzu Chin Shan (紫荊山), Pai Chia Chuang (百家庄), Ming Kung Lu (銘功路) and Jen Chai (任砦). See History Dept., Peking University, Archaeology from the Shang and Chou Dynasties.

rectangular dwelling, which ranged in size from 4 - 10 sq.m., similar in size to the rectangular village houses (See Figure 2-1-12). Comparing two groups of houses dating from the same period which were excavated in Nei Ch'en Keng and Ming Kung Lu, we can find three differences in their arrangement which indicate who the

Figure 2-1-12 Rectangular houses of commoners
(Lin Hui-Ch'eng, 1981, p 34)

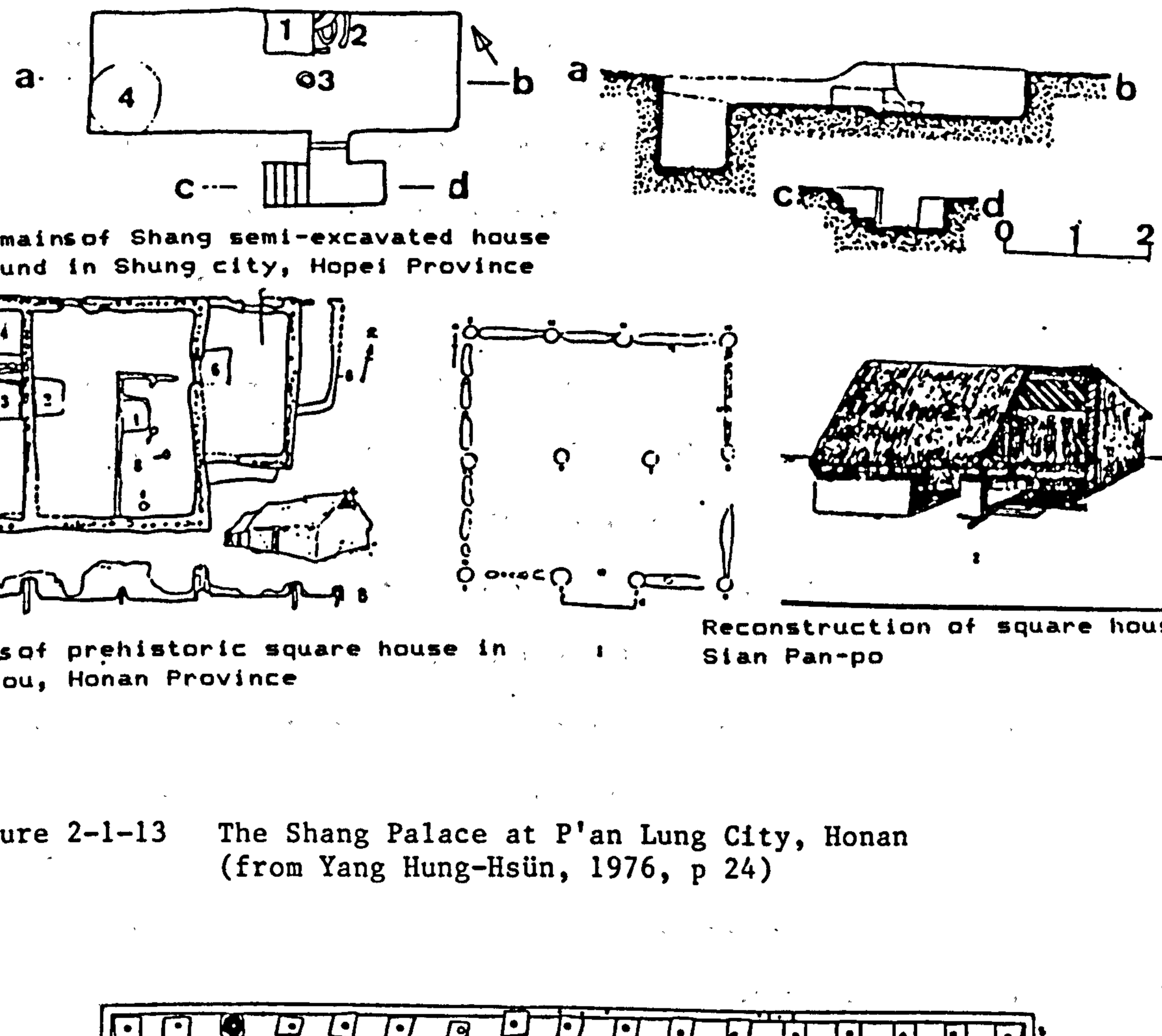
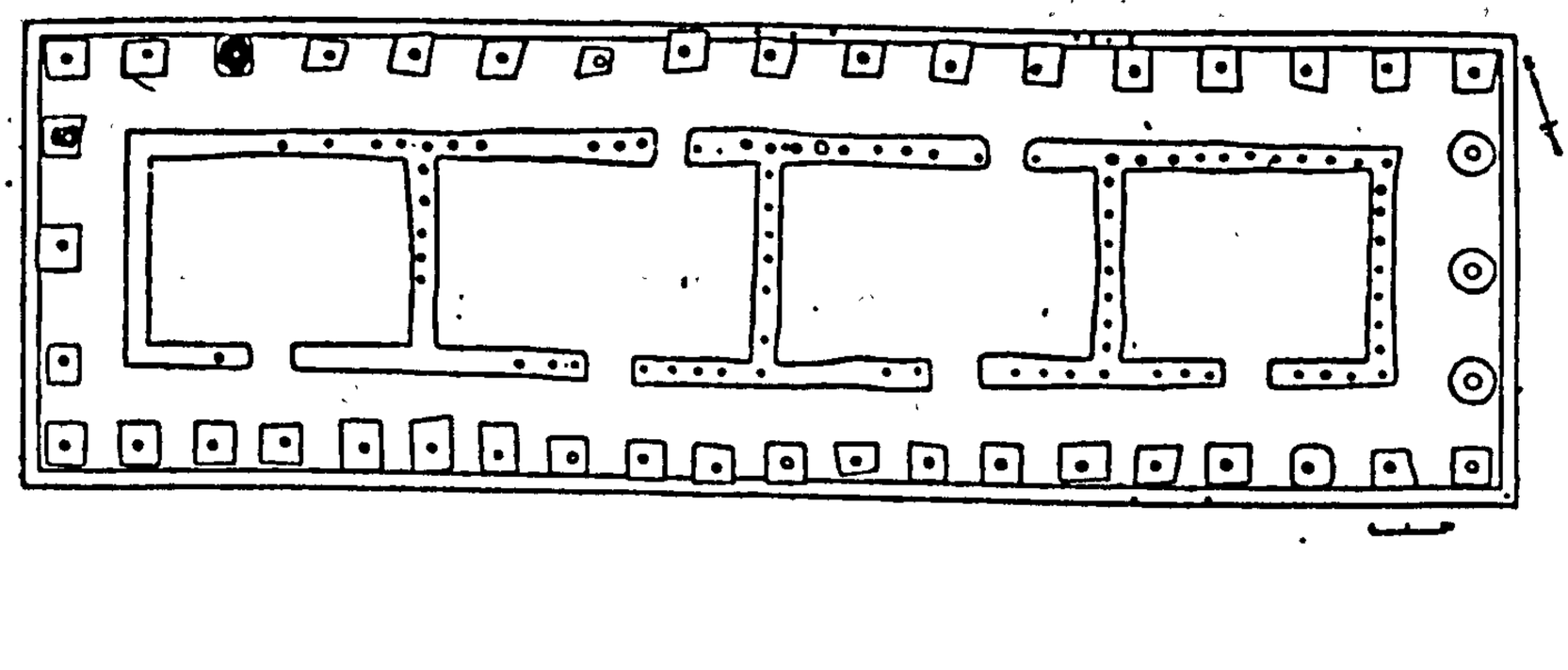


Figure 2-1-13 The Shang Palace at P'an Lung City, Honan
(from Yang Hung-Hsün, 1976, p 24)



former inhabitants may have been :

1. The houses in Nei Ch'en Keng had tamped earthen floors and a surrounding wall, while houses in Ming Kung Lu had neither elements.
2. The former contained a rectangular earthen elevation used as a bed, while the sleeping area in the latter was merely a dried section of the ground.
3. The ground and earthen elevation in the former were covered with a layer of fine loess which was not found in the latter.

Although these houses were of the same size and form, archaeologists have inferred from the furnishings that the former were dwellings of farmers and the latter houses of slave potters (1).

The second main characteristic of houses which began at this period was the division of worship and residential spaces. Studies of Shang and Chou palaces show a clear departure from the large houses of tribal leaders, where the residential and worship functions had been combined in one area. The Shang palace at P'an Lung City was divided into four rooms, each with a door on the southern side which only led to the outside. The two central rooms each had in addition, a back door. The palace was surrounded by a corridor on all four sides. See Figure 2-1-13. Archaeologists have concluded that the palace was purely residential, while the area in front of the palace was used for worship (2).

The palace in Chi Shan County, Shensi Province dating from the West Chou Dynasty was divided into a front and rear section, the former

---

1) See History Dept., Peking University, Archaeology from the Shang and Chou Dynasties, pp 74-75
2) Ibid , p 66

being the worship and work area (of the ruler) called Tsao and the latter the residential area Ch'in. The residential area contained nine rooms on three sides of the rear courtyard, in front of which stood the worship altar (1). See Figure 2-1-14.

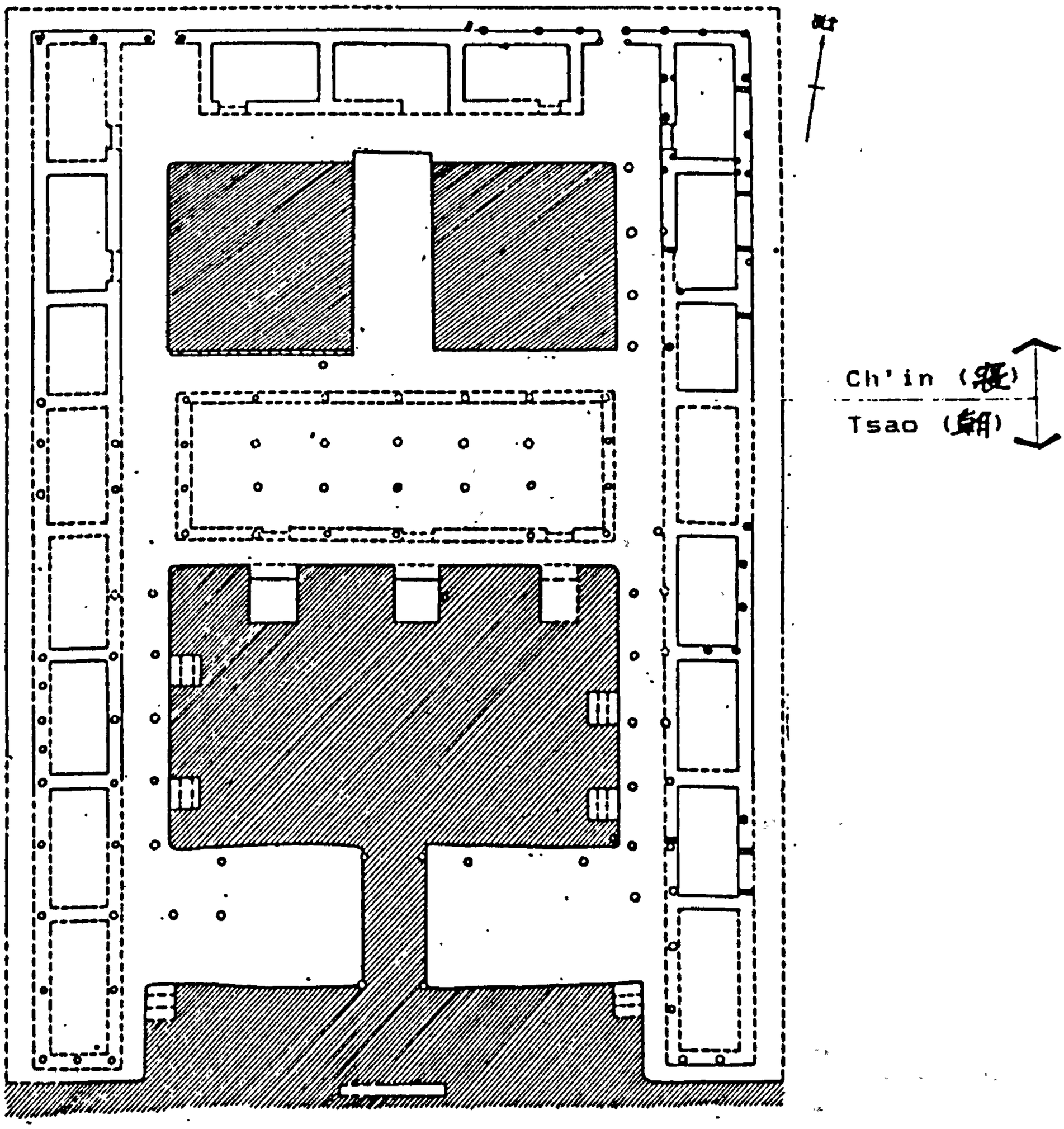
The difference between these two palaces from the two Dynasties lay in the means of separating the two areas. They are divided in the first (Shang) palace by way of two separate structures, while in the second (Chou) palace, the two different areas in the same structure are divided into a front and rear section.

According to Lee Yün-Ho, the front halls - rear rooms (前堂後室) form of houses became the most common and popular house form after the Chou Dynasty. In this single structure which originated from the Chou dynasty, the front halls consisted of a central hall flanked by an east and west hall on the two sides, while the rear rooms likewise contained a central room flanked by two smaller rooms. Similar to the Chou palace, the front halls were used for worship and the rear rooms for residential purposes (2). See Figure 2-1-15.

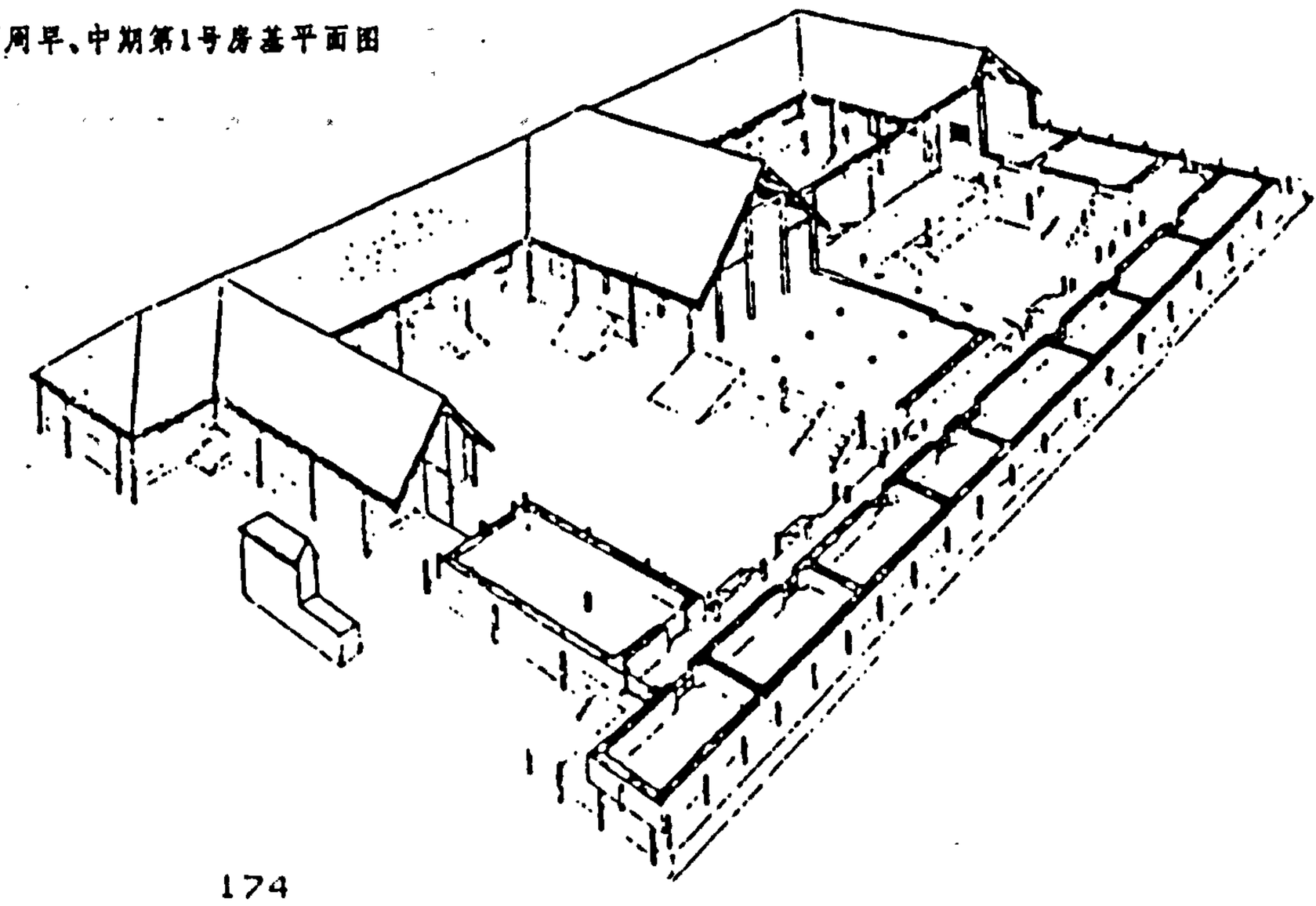
---

1) See History Dept., Peking University, Archaeology from the Shang and Chou Dynasties, p 182
2) See Lee Yün-Ho, Cathay's Idea-Design Theory of Chinese Classical Architecture, p 84

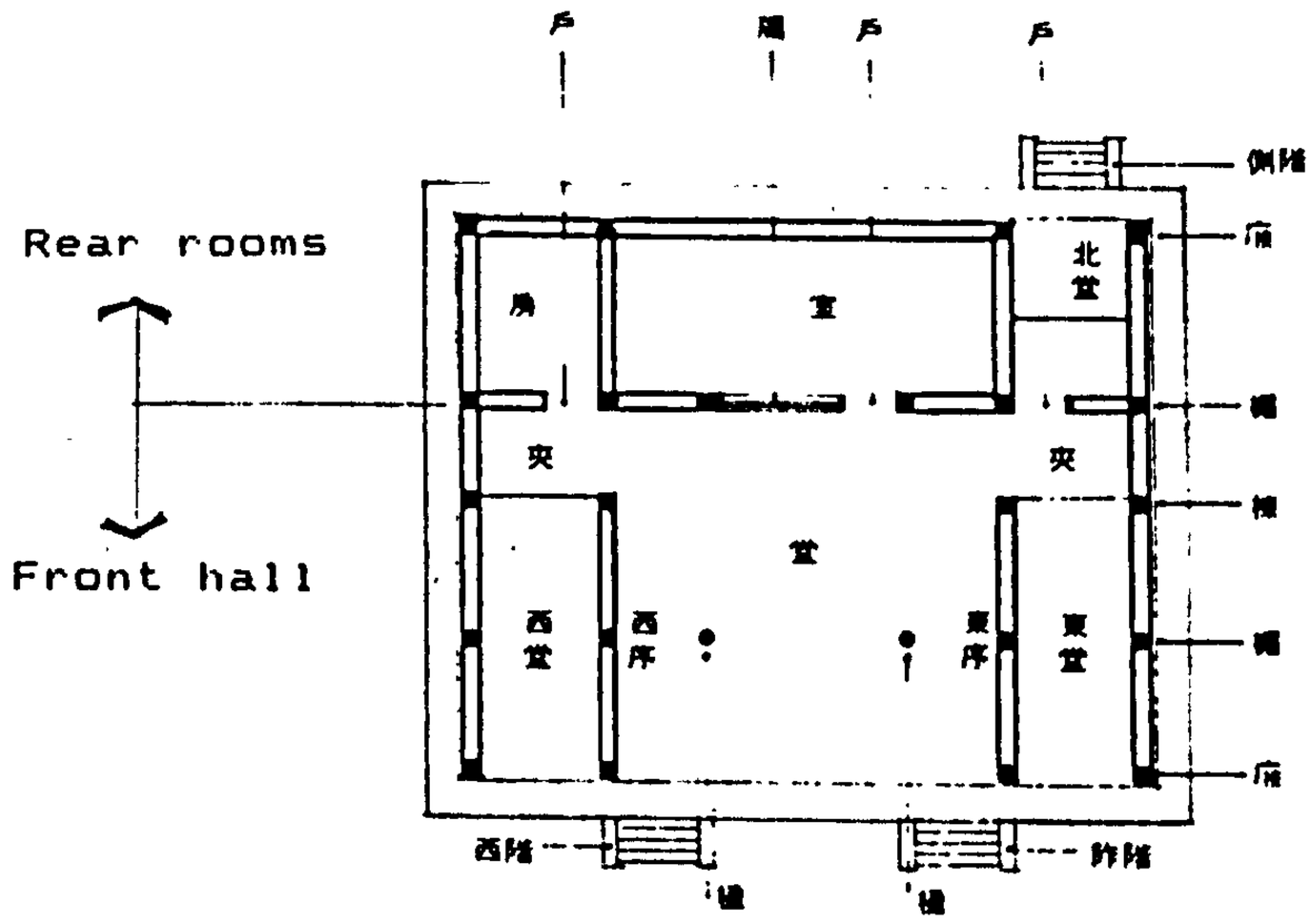
Figure 2-1-14 The West Chou Palace in Chi-Shan County, Shensi Province
(Yang Hung-Hsün, 1981, p 24)



图一五五 陕西岐山凤雏西周早、中期第1号房基平面图

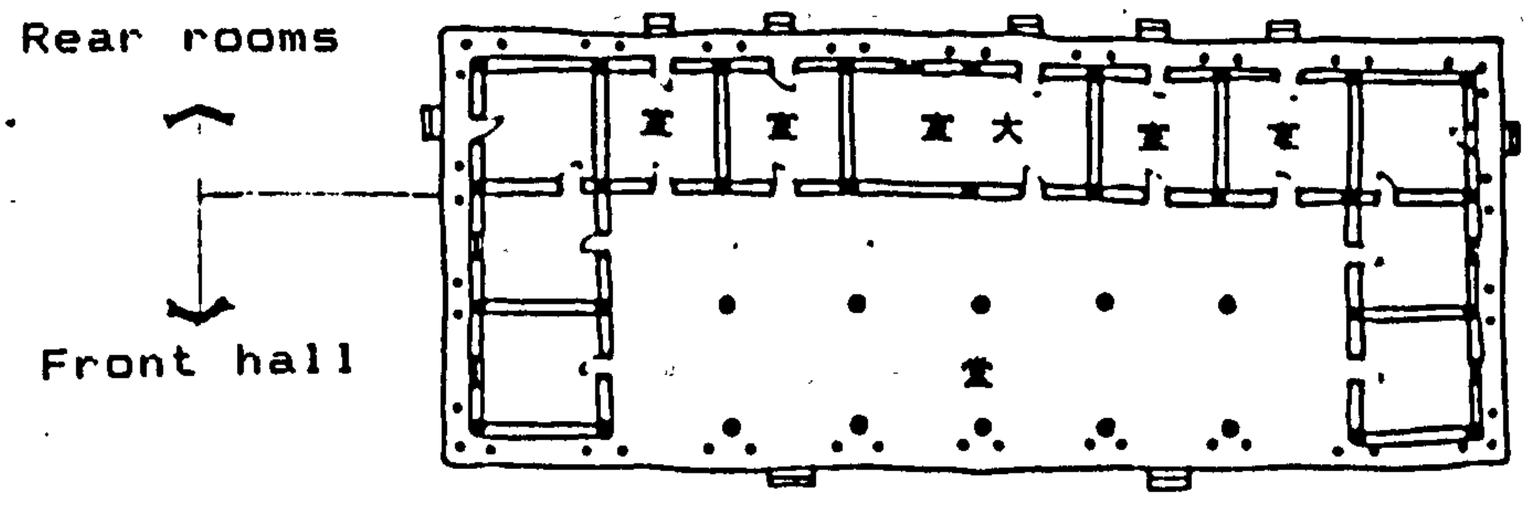


Figures 2-1-15 The <u>front hall</u> - <u>rear rooms</u> house form
(Lee Yün-Ho, 1978, p 84)



根據文字資料繪製的古代標準住宅形式「士寢圖」。

(Lin Hui-Ch'eng, 1981, p 29)



Summary and Conclusion

In this chapter, I have discussed the house form and the symbol system it followed during the first two periods in Chinese history.

In prehistoric China, the main theme in house construction was the consecration of the living territory and the residence. As only sacred territory was considered habitable, the site of a new settlement was only chosen after careful considerations, followed by various ceremonies. Because of the people's close dependence on their gods, numerous worship ceremonies held before the main daily events became a prerequisite.

The tribe leader lived in the "large house", in which gods were also worshipped. The "large house" was consequently both the physical and spiritual centre of the settlement, surrounded by smaller dwellings which faced the "large house". This arrangement demonstrated the dependence of tribe members on their gods.

Tribe members were not permitted to remain in the delimited territory of the settlement after their death, as they were believed to bring calamity to the world of the living. They were buried in a separate area outside the territory, thus dividing the world of gods and men from the chaotic world of the dead.

When several tribes joined a larger collective group, they erected an earthen platform at the centre of the new settlement, on which was placed the emblem of their guardian god. Generally speaking, the "large house" and later the earthen platform was the focal point of the sacred territory.

At the beginning of the formation of states, religion controlled social change. The spatial arrangement of the dwellings of the time was influenced by the requirements of the worship of ancestors and natural gods.

In excavated or cave dwellings, worship ceremonies had been held before the fire pit inside the dwelling. With the development of houses above the ground, a special room in the house was reserved for the worship of ancestors. Similar to the ancestral temple of the state, this ancestral hall became the most important room in the house and priority was always given to its construction and materials.

The worship of nature gods included the gods of heaven and earth, the local god, the gods of the four directions, and the gods of the mountains and rivers. Their worship was related to the agricultural needs of the people. Several elements emerged which complied to the requirements of the worship of these gods : The gods of heaven and earth were worshipped at the chung liu (中雷) of a house and the she (社) of the state, as both fulfilled the necessaary requirements: : The worship of heavenly gods used the drifting of smoke through an opening to the sky to send messages to the gods, while sacrifices were placed in a pit on the ground under sunlight for the worship of earth gods. The chung liu was the forerunner of the yen liu (檐雷) and central courtyard of later residences.

A principal element of traditional Chinese architecture - the earthen platform - found its origin in the worship rituals of ancient China. Only when tribe leaders began to build their houses on the platform was its function changed from purely religious to include

residential. At the same time, the painting of totems on the she trees was carried over to the decoration of traditional architecture.

To the people of the Shang and Chou Dynasties, every house was a microcosm. Different ceremonies accompanied the various stages of their house construction, which symbolised the goddess Nü Wah's reconstruction of the universe. The Shang and Chou people saw the universe as possessing the characteristics of a house - covered by a vault, supported by columns standing on a floor.

The main steps necessary in maintaining the cosmic order in the human world were the location of the cosmic axis and of the four directions for the worship of the gods.

Owing to the change in the symbol systems of prehistoric China to those of the Shang and Chou Dynasties, man's emphasis in house building changed from its consecration to its "cosmicisation". It was not sufficient for the ideal house in the Shang and Chou Dynasties to be merely sacred; it must at the same time be attuned to the cosmic order.

In the 3500 years from the beginning of the matriarchal Yang Shao Culture to the Shang and Chou Dynasties, man's world was controlled by their various gods. The worship of these gods took place inside their main living area of their dwelling; the place of worship was at the same time their living space. With the beginning of Chinese civilisation in the Chou Dynasty, the centre of man's lives changed from the gods to man himself, and his living space became separated from his worship area.

The people in the Chou Dynasty began to study the relationship between man and nature. Towards the end of the East Chou period, many schools of Naturalism sprang up, which systemised the cosmic thinking regarding the house, which had begun in the Shang and Chou Dynasties.

At the same time, the cosmic thinking based on the myth pertaining to the origin and form of the universe which had been prolifically recorded by East Chou scholars led to its acceptance and great popularity in the Han Dynasty, and together with the ideas of Naturalism, laid the basis for the cosmology applied to houses, which is the main theme of the next chapter.

The contents of this chapter has been largely based on archaeological findings of the Shang and Chou Dynasties. I have avoided using unconcluded inferences concerning the finds, rather I have tried to support and prove my argument with both ancient and present literary records.

The relationship between the ancient she and the front elevation of Chinese houses is a subject which has not been previously studied. My inference from the viewpoint of rituals has been based on literary records regarding the she and its shape; further research on the connection between she and house form from other sources would be desirable.

CHAPTER 2 The cosmology and cosmic framework after the Han Dynasty

The Chin (221-206 B.C.) and Han (206 B.C. - A.D. 220) Dynasties were a period of imperial unification in Chinese history, during which not only the separate states were united; at the same time, through the merging of the various schools of thinking (e.g. the Yin Yang School, the Five Elements School, the School of Rules Concerning Forms, etc. which emerged during the Warring States Period from 770-221 B.C.), the different symbol systems of the states before Chin combined to form a new and unified system. The main emphasis of this syatem was its cosmology. The relationship between this cosmology and house building was undeniable already in the Han Dynasty, but the dependence of house building on cosmology did not fully reach its peak until the Tang Dynasty (A.D. 618-907) (1).

In this chapter, I shall discuss the main streams of thinking from the different schools which joined to form the cosmology of the Han Dynasty. The cosmology of houses was formed during the period from the Han to the Tang Dynasties; after the Tang Dynasty until the end of the traditional period, this cosmological thinking dominated the arrangement of most Chinese houses.

2.2.1. The formation of the cosmology of houses from Han to Tang Dynasty

The symbol systems of rituals and the spatial arrangement of houses

---

1) See Han Pao-Teh, 風水 - 中國人的環境架構 "A Study of Feng Shui as a Chinese Concept of the Environment" in 建築與城鄉研究學報 Bulletin of Environmental Studies, , Vol. 2, No. 1, (Taipei: National Taiwan University, 1983)pp 130-131

in the Shang and Chou Dynasties had been handed down to the Han Dynasty by three main groups of people. They were scholars (and diviners), historians and craftsmen.

The work of scholars and diviners consisted mainly of observing and interpreting natural phenomena (omens) for their employers - kings, lords and noblemen. Their advice on the proper location of a city or house, or the proper behaviour of individuals was intended to keep man's world orderly. The continuance of such work by scholars and diviners assured the preservation of this knowledge (1).

Court historians were in charge of written documents and were therefore familiar with past recorded events. They referred to past events to show the importance of certain rituals (including those of site finding) to the fortune of a state, city or even a certain site. This allowed the king and noblemen to make correct decisions before any major event (2). The third group of people responsible for passing on their professional knowledge were building constructors and craftsmen. Their knowledge of spatial arrangement led to a both a physically and spiritually suitable residential environment (3).

At the beginning of the Han Dynasty, the teachings of Lao Tzu and Chuang Tzu were widely promoted by the imperial family, leading to their widespread acceptance and a previously unknown popularity among the common people. Because of the impact of these teachings, the Han people showed greater interest in the workings of their universe. In their search for the relationship between nature and

---

1) See Nan Hai Chu Jen, 堪輿學原理 (The Theory of K'an Yü), (Taipei:Chi-Wen, 1981), pp 3-6
2) Lee Yun-Ho, Cathay's Idea - Design Theory of Classical Chinese Architecture, (Taipei: Lung Tien, 1980), Chapter 3, pp 77-89
3) ibid

man, three main streams of thinking were taken from the symbol systems which had survived the Chin Dynasty (1).

The philosophy of Yin and Yang and the Five Elements became the core of Han thinking. Their application could be found in all fields of life, including religion, politics and pseudo-scientific teachings. After the Han Dynasty, they were firmly established as the main essence of Chinese philosophical thinking.

The origin of Yin and Yang and the Five Elements could be found in the desire of ancient Chinese to categorise all life and objects in the universe, and simplify the complex phenomena they encountered in their daily lives. Moreover, they attempted to analyse the main components and find common elements and principles in all forms of life and all inanimate objects. The answers to their questions were found in the all-dominating principles of Yin and Yang and the Five Elements.

2.2.1.1. The School of Yin and Yang

Yin and Yang are the endless source of all life-force in the universe. The most basic idea in Chinese cosmology is that the interaction of Yin and Yang produces all things in the universe (2). Either Yin or Yang alone cannot produce life. This idea may have been inspired by man's own encounter with reproduction in nature.

---

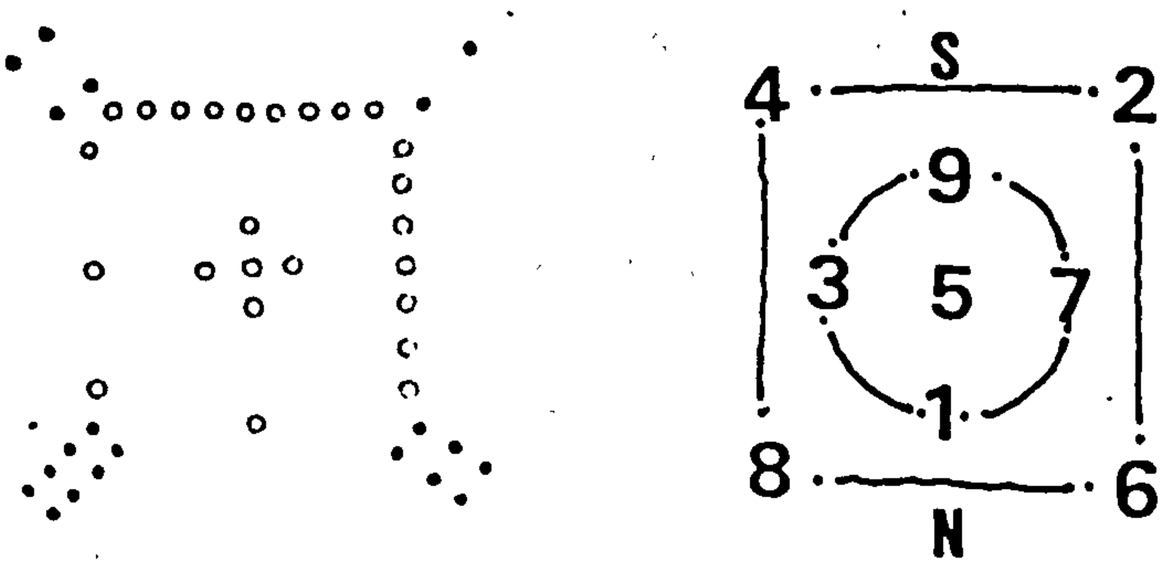
1) The Chin Dynasty was a Legalist society, in which knowledge among commoners was condemned. The Prime Minister of Chin Shih Huang Ti (The First Chin Emperor), Li Szu, suggested and carried out the burning of all books in the country save those of the palace. Written works on the symbol systems were mostly destroyed at this time.
2) See Lao-Tzu, Chapter 42 (道生一、一生二、二生三、三生萬物.), "Tao produces one, one produces two (Yin and Yang), two produce three and three produce ten thousand things". Translation mine.

Another main characteristic of Yin and Yang is their mutually complementary nature and cyclic movement, which accounts for the constant motion of the universe and all its phenomena, such as the successive change of night and day or that of the four seasons. Yang represents masculinity, light, warmth, dryness, hardness, activity, etc., while Yin represents feminity, darkness, cold, moisture, softness, passivity, etc.

It is believed that living creatures are surrounded by Yin and envelop Yang, and only the harmony of these two forces can bring harmony to the lives of all living creatures. The two forces have always been considered equally important in Chinese thought, and a balance between them ensures happiness, health and an orderly world.

The relationship between Yin and Yang and the movement of the universe can be shown by the use of numbers. Lo Shu or the Lo writing (1) consists of a "magic square" (see Figure 2-2-1), of which the original creators remain unknown. While this diagram belongs to the so-called "undatable Chinese tradition", it had become widely used in the Han Dynasty.

Figure. 2-2-1 Lo Shu (from James Legge, The Chinese Classics, Vol. 3 - "The Shoo King", p 321)



---

1) Lo Shu, a diagram recorded in the Appendix of the I-Ching, was supposedly borne out of the Lo River on the back of a tortoise.

By placing the ordered number of dots in the Lo Shu into a square chart, we arrive at a three by three magic square. Associating this chart with the directions, it can be seen that the Yang (odd) numbers form the cardinal points, and the Yin (even) numbers the intermediate points (1). A passage in "Ch'ien-Tso-Tu" (乾鑿度) presents the circulating movement of these Yin and Yang numbers as going in an anti-clockwise direction, the numbers here indicating the ratio of Yang to Yin through the annual cycle. It states: "The Yang in operating advances, changing from 7 to 9 and thus symbolising the waxing of its ether. The Yin in operating withdraws, changing from 8 to 6 and thus symbolising the waning of its ether" (2).

Feuchtwang explains the change of seasons with this chart as follows: "In winter, Yang is 1 (Yang's lowest number) while Yin is 8 (Yin's highest number), in spring, Yang is 3 and Yin is 4 (crudely par), in summer Yang is 9 (its highest number), Yin is 2 (its lowest)... and so on" (3).

The diviners who interpreted the movement of Yin and Yang in the Han Dynasty and thereafter were known as Yin Yang masters. By elucidating celestial phenomena they were able to calculate on their diviner's board (see Figure 2-3-9) and other instruments the correct timing of important events and thereby advise people in

---

1) See Chou Pi Suan Ching (Mathematical Classic on the Gnomon) in Joseph Needham, Science and Civilisation in China, Vol. 3, Chapter 19
2) Ch'ien-Tso-tu, in Yi-Wei (Apocryphal Treatise on the Changes: A Penetration of the Laws of Ch'ien) in Fung Yu-Lan, A History of Chinese Philosophy, Vol. 2, p 101
3) Stephen Feuchtwang, "An Anthropological Analysis of Chinese Geomancy", (Vientiene: Vithaga, 1974) p 93

advance of impending fortune and misfortune (1).

2.2.1.2. The School of Five Elements

In the history of Chinese philosophy, the theories of the Five Elements holds as important a place as that of Yin and Yang in laying the basis for Chinese cosmology. The Five Elements consist of wood (木), fire (火), earth (土), metal (金) and water (水). Through the interaction of Yin and Yang, matter becomes differentiated into the Five Elements. These in turn interact to produce the great variety of existing things, all of which are therefore related to one or other of the elements, or represent different combinations of them.

A section of the Book of History which discusses the Five Elements gives insight into the way they were regarded by the ancient Chinese:

> Water is that quality in Nature which we describe as soaking and descending.
> Fire is that quality in Nature which we describe as blazing and uprising.
> Wood is that quality in Nature which permits of curved surfaces or straight edges.
> Metal is that quality in Nature which can follow the form of a mould and then become hard.
> Earth is that quality in Nature which permits of sowing, growth and reaping.
> That which soaks, drips and descends causes saltiness.
> That which blazes, heats and rises up generate bitterness.
> That which permits of curved surfaces or straight edges gives sourness.

---

1) The discovery in 1977 in Fuyang, Anhui province, of a diviner's board dating from the Han Dynasty confirms written records of such an instrument. The divener's board consisted of two plates, the lower one square, representing earth, and the upper one round, representing heaven. Both plates were marked with cyclical and astronomical signs which were used in divination. See Yen Tun-Chieh, 関於西漢初期的式盤和占盤 (On the Diviner's Board from Early West Han) in 考古 Kao Ku, 1978, No. 5, pp 334-337; and Joseph Needham, Science and Civilisation in China, Vol. 4, Chapter 20, pp 202-203

That which can follow the form of a mould and then become hard produces acridity.
That which permits of sowing, growth and reaping, gives rise to sweetness (1).

This long quotation is instructive in showing that Chinese thought concentrated on relation rather than substance, as the concept of the elements was not so much of five sorts of fundamental matters as of five sorts of fundamental processes. And in this view, the five elements were five powerful forces in an everflowing cyclical motion, and not passive, motionless fundamental substances (2).

Two types of orders in the theory of the Five Elements related to all aspects of Chinese life existed in the Han times, which were concerned with the prophecy and divination of human affairs (3). These two orders, which were bequeathed to all later ages, merit special attention; they were the Mutual Production Order and the Mutual Conquest Order.

The theory of the Mutual Production Order is to a certain extent based on natural laws: Wood produces Fire, as the friction caused by the drilling stick causes wood to burn; thus Wood produces Fire. Fire produces Earth, as wood can be burnt to ashes, which in turn becomes earth; therefore Fire is said to produce Earth.
Earth produces Metal, as ores are found in the stones on mountains, which are formed from the accumulation of earth. Therefore Earth produces Metal.

Metal produces Water as metal liquifies when it is melted, therefore Metal is said to produce Water. Water produces Wood, as

---

1) See James Legge, The Chinese Classics, Vol. III - "The Shoo King", (Hong Kong: Hong Kong University Press, 1960), p 325-326
2) Joseph Needham, Science and Civilisation, Vol 2, p 243
3) Lao Sze-Kwang, A History of Chinese Philosophy, Vol 2, (Hong Kong: Chinese University of Hong Kong, 1971), pp 12-18

trees depend on water for their growth and survival. Thus Water produces Wood, which comprises all trees.

These principles of the Mutual Production Order can be illustrated in an interdependent production cycle. (See Figure 2-2-2)

We shall now consider the principles of the second order, the Mutual Conquest order. This Order describes the series in which each elements is said to conquer the next: Water, Fire, Metal,

Figure 2-2-2 Mutual Production Order of the Five Elements (Jean Michel Huon de Kermadec, The Way to Chinese Astrology, (London: Unwin Paperbacks, 1983, p 82)

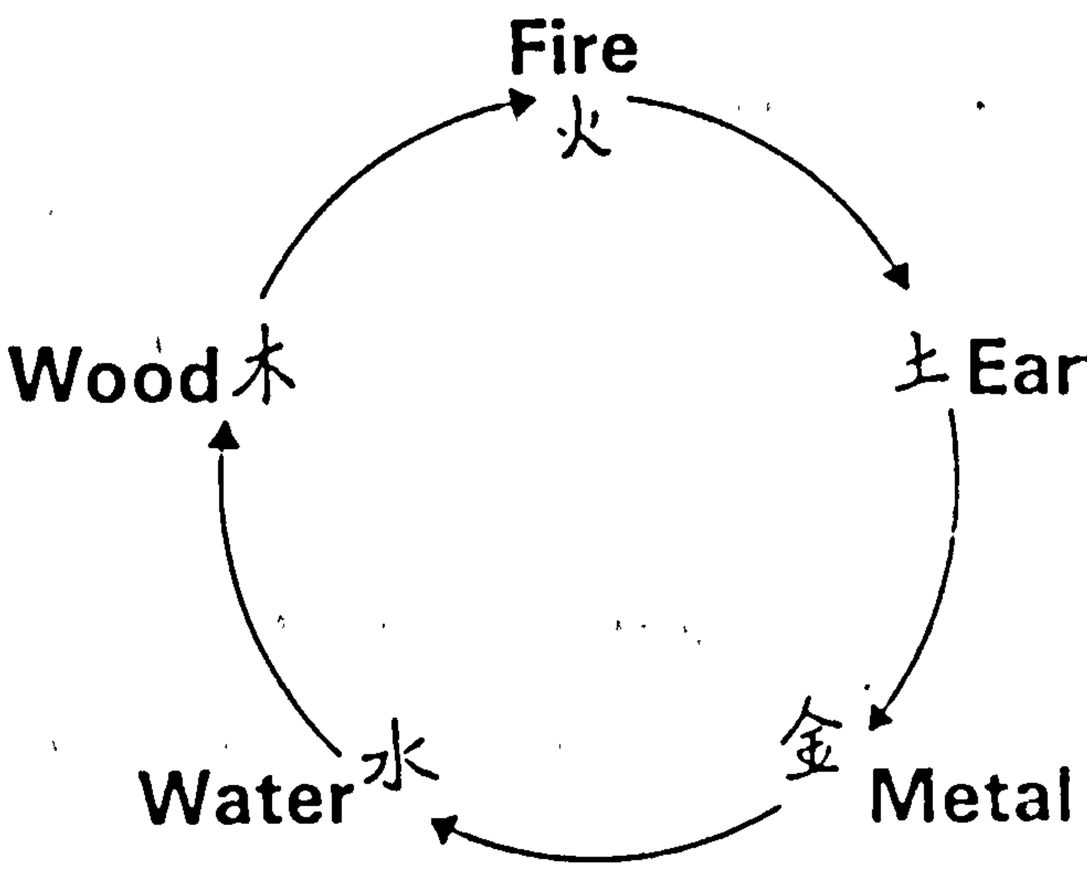
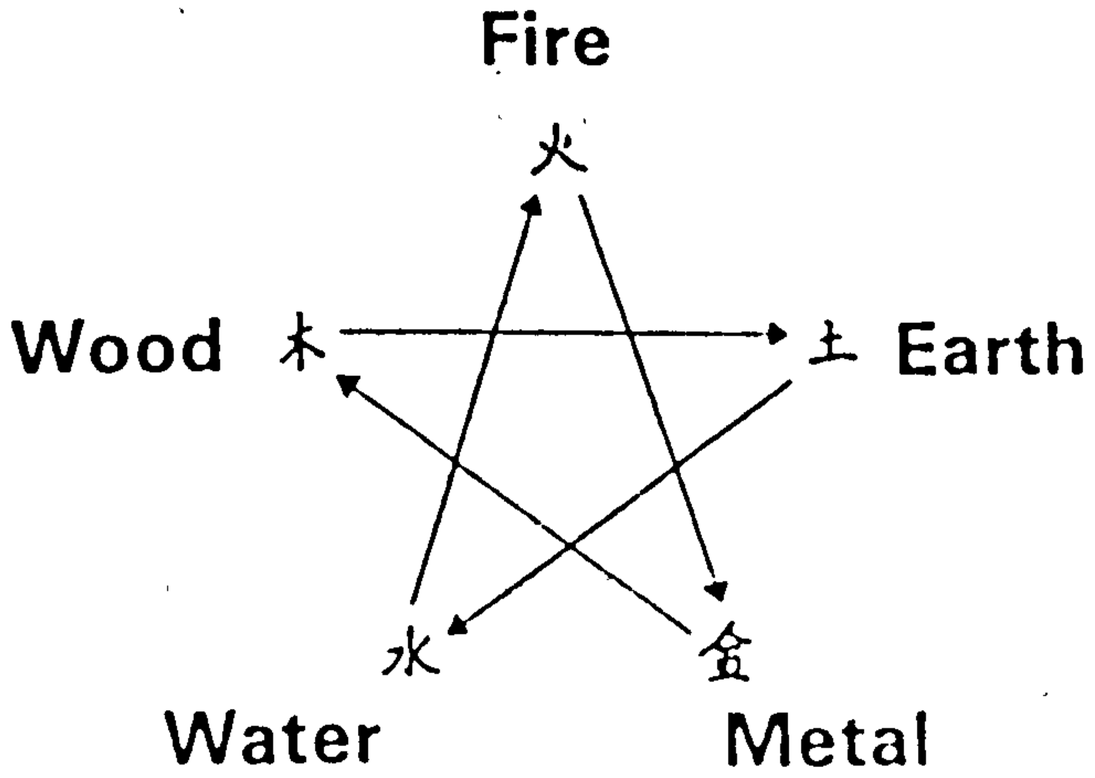


Figure 2-2-3 The Mutual Conquest Order of the Five Elements (from Jean Michel Huon de Kermadec, 1983, p 83)



Wood, Earth. The order is based on a logical sequence of ideas that has its basis in common scientific knowledge: the fact that elements do harm to one another derives from the nature of the universe, according to which, for example, that which is concentrated conquers that which is diffused.

Thus in the form of a spade, wood can loosen or excavate earth; therefore Wood conquers Earth. Metal can cut or carve wood, therefore Metal conquers Wood. Fire can melt or even vaporise metal, therefore Fire conquers Metal. Water can extinguish fire, therefore Water conquers Fire. Earth can dam and contain water, therefore Earth conquers Water (1). See Figure 2-2-3

The relationships among the five potent elements present a network of interconnections among themselves and shape two self-contained cyclic images; they generate and destroy each other in a continually moving cycle.

The two Orders were considered important from the divinatory point of view; they were put forward as an explanation for the course of natural law, with the implication that they would apply in human affairs and were therefore useful for prediction, laying the basis in foretelling fortune or misfortune in human affairs. In this way, the Chinese developed a striking method of determining how man balanced with Nature. All men were categorised into one of the Five Elements according to their time of birth, a quality which was

---

1) A more detailed explanation of the mutual antagonism of the Five Elements which completely satisfied the Chinese minds during the traditional period can be found Tung Chung-Shu, Ch'un Ch'iu Fan Lu 春秋繁露 (Luxuriant Dew of the Spring and Autumn Annals), Chapter on 五行之義 (Meaning of the Five Elements), Vol. 11, pp 3-4, Han Dynasty; and Hsiao Chi, 五行之義 (Great Meaning of the Five Elements), Han Dynasty; and Chen Li,白虎通疏狂 (Comprehensive Discussions in the White Tiger Hall), Vol. 4, p 24, Han Dynasty.

strongly emphasised in the search for a proper residential environment.

By reflecting the theory of the Five Elements in relation to other fields of Chinese thought, a wide-ranging set of corresponding theories evolved, which among others pertained to the seasons, the directions, the five tones, the colours of clothing, the five odours, the five tastes, even to the imperial system and the political institution (1).

For example, in politics, the Five Elements were regarded as the Five Powers, explained by Fung Yu-Lan as follows:

> ...the Five Elements or Powers are natural forces, each of which has its period of rise and decay. Both natural and human events are under the control of that element which happens to be in the ascendancy, but when its cycle is finished and it declines, it is followed by the next force in the series that can overcome it, and which, in its turn, flourishes and has its cycle...Changes in human history are but manifestations of these natural forces, each dynasty being represented by one 'Power' and the color and institutions whuch it assumes being determined by this power" (2).

The Five Elements and the two Orders were not only important in formimg the background to much traditional Chinese philosophy and speculation, but also became an important part of the Chinese cosmic framework, which will be discussed in detail later in this chapter.

---

1) See Needham, Science and Civilisation, Vol. 2, p 262-263. Needham listed the relationship of the Five Elements to the following items: seasons, cardinal points, tastes, stems (denary cyclical signs), branches (duodenary cyclical signs), animals, numbers, musical notes, Hsiu (宿), star palace, heavenly bodies, weather, states, rulers, Yin-Yang, human psycho - physical functions, styles of government, ministries, colours, instruments, class of living animals, domestic animals, grains, sacrifices, viscera, parts of the body, sense organs and affective states.
2) Fung Yu-Lan, A History of Chinese Philosophy, translated by Dirk Bodde, Vol. 1, (Princeton : Princeton University Press, 1953) p 162-163

2.2.1.3. The School of Rules Concerning Forms

Next to the Schools of Yin Yang and the Five Elements, the "Memoir on Skillful Writings" (1) discusses the School of Rules Concerning Forms. The author Pan Ku describes the scholars of Rules Concerning Forms as masters

> "who treated on a wide scale of the configurations in the nine subdivisions of the Empire and derived therefrom the shape of cities and dwellings; they also treated of the dimensions and numbers in the osseous system of man and the six domestic animals, and of the forms and capacity of vessels and implements, thus fixing of everything the respective sound and breath, the value or non-value, the auspicious or inauspicious operation" (2).

The study of the shape of cities and dwellings was thereby in the hands of these masters, who employed as their standard the symbolic meanings of <u>forms</u>. Different forms were believed to pertain to different sounds in the same manner as different length pitch pipes emitted different tones. The ancient Chinese five note scale correlated with the Five Elements and their corresponding forms.

Wang Ch'ung discussed the rules applied in the Han Dynasty in the search for a suitable dwelling: A dwelling has five sounds (or five forms) which corresponded to the Five Elements; in the same manner, a surname has five tones; if the form of the house does not fit to the corresponding element of the surname, the two will be mutually antagonistic and lead to disease, crime, calamity and death. The entrance of the five different forms of houses should each face a predetermined direction, only then will the inhabitants become prosperous and lucky. If the entrance faces a wrong direction,

---

1) Pan Ku (A.D. 32-92), "Memoir on Skillful Writing" or "I-Wen Chih" in <u>History of the Former Han Dynasty</u>
2) De Groot, <u>The Religious System of China</u>, Vol. 3, Book 1, Part 3, p 995

poverty and decline will befall the inhabitants (1).

Most of the written records on the relationship between the five tones and the shape of houses have become lost, as has this doctrine, which was replaced by that of the relationship between Ch'i and the form of houses in the Tang Dynasty and thereafter (2). These Schools of Yin and Yang, the Five Elements and the Rules Concerning Forms were strongly interrelated and laid the basis for the shape of the Chinese cosmic framework. This cosmic framework became the main structure and content of Feng Shui (3) which consisted of the Yin Chai (Residence of the dead) and Yang Chai (Residence of the living) Theories. As Yang Chai Theory deals with the mysterious relationship between man and his dwelling, it will be discussed in great length in the next chapter.

2.2.2. Characteristic features of the cosmology of houses starting from the Han Dynasty

The theory of the cosmology of houses became stabilised in the Han Dynasty. The four main characteristic features which merit our special attention are:

1. <u>The concept of heaven being round and earth being square</u>

According to Alfred Forke, six theories were developed to explain the universe as it appeared to the Chinese. Of these theories, <u>Kai-t'ien</u> (蓋天), <u>Hun-t'ien</u> (渾天) and <u>Hsüan-yeh</u> (宣夜) appeared

---

1) See Wang Ch'ung (A.D. 27-100), <u>Lun Heng</u> or Critical Essays, Chapter Chieh Shu
2) Han Pao-Teh, "A Study of Feng Shui as a Chinese Concept of the Environment", pp 123-150
3) <u>Feng Shui</u> was also known as <u>K'an Yu</u> or "the system which occupies itself with heaven and earth", as well as <u>Ti Li</u> or "The natural influence that pervades the earth".

before the birth of Christ, while the theories of Hsin-t'ien (昕天), Ch'iung-t'ien (穹天) and An-t'ien (安天) date from the first centuries of the Christian era (1).

The earliest of these six theories is that of Kai-t'ien, which may have appeared already in the Shang Dynasty, and states that Heaven is shaped like a cupola or dome. The is the theory which was most accepted by later Chinese and strongly influenced their shaping of their residential environments. Two major aspects of Kai-t'ien are: Firstly, heaven can be likened to a covering umbrella and earth to an upturned bowl, both of which are high in the centre and sloping at the periphery. The centres of both heaven and earth are directly beneath the North Pole (2). Secondly, square belongs to earth and roundness belongs to Heaven, therefore heaven is round and of a dark blue colour, while earth is square and yellowish brown (3).

Accordingly, "heaven and earth must be both half globes, one upon the other," (See Figure 2-2-4 a.) "but while heaven at its base is round, earth is rectangular" (4). Although this describes the surface of the earth as being curved, by the time of the Chin Dynasty, the shape of the earth was being compared to that of a flat chessboard (5).

The concept of heaven being round and earth being square led to the following categorisation which was held by the Chinese of the Han Dynasty and thereafter:

---

1) See Alfred Forke, The World Conception of the Chinese, (Reading: Eastern Press, 1925), p 12
2) See Alfred Forke, The World Conception of the Chinese, pp 12-13
3) See Duke of Chou, 周髀算經 (Mathematical Classic on the Gnomon) Chapter I, 17, Chou Dynasty
4) See Alfred Forke, The World Conception of the Chinese, p 13
5) See Book of Chin or Chin Shu, Chin Dynasty, A.D. 265-429

a. Belonging to heaven : the circular shape and cyclic movements. As Needham said, the ancient Chinese "visualised the heavens as round because the starry sky seems to the observer like a hollow spherical dome rotating continuously above him in a circular manner" (1). Heaven was also linked to brightness (2) through the light emitted by celestial bodies, while the number three was considered heavenly because the circle contains the diameter thrice (3).

b. Belonging to Earth : the square shape and immovable image. As Lü Pu-Wei said, the ancient Chinese realised that "all things on earth had their special functions, which could not be interchanged, therefore the nature of earth is fang, which means 'place' and 'position', but also 'square', i.e. everything on earth has its proper 'place'" (4). Earth was also linked to darkness (5) as the counterpart of heaven's brightness. The number four was considered earthly because the way of dividing the azimuth into the four cardinal points (6).

2. The geometric concept of nine continents of the Earth and nine halls in the Ming Tang or Hall of Light

A passage in the Lü-shih Ch'un Ch'iu says: "Heaven has nine fields; Earth has nine continents; the land has nine mountains, the mountains have nine passes" (7). Thus the common image the people of that time shared of their world was that of a large square divided three by three into nine squares.

---

1) See Needham, Science and Civilisation, Vol. 4, Part 3, p 73
2) See Huai Nan Tzu, Chapter on Tien Wen (天道曰圓.圓者主明)
3) See Alfred Forke, The World Conception of the Chinese, p 52
4) See Lü-shih Ch'un-ch'iu (Spring and Autumn of Mr. Lü) quoted in Alfred Forke, The World Conception of the Chinese, p 53
5) See Huai Nan Tzu, Chapter on Tien Wen (地道曰才.才者主幽)
6) See Needham, Science and Civilisation, Vol. 4, Part 3, p 73
7) Lü-shih Ch'un Ch'iu (Spring and Autumn of Mr. Lü), Chapter XIII-1 in Fung Yu-Lan, A History of Chinese Philosophy, Vol. 1, p 167

The geometric shape of the square became of vital importance in traditional Chinese environmental design, as it represented earth or man's world, as opposed to a round heaven. It is notable that the classical plan of a Chinese city (See Figures 2-2-4 b, c, d, e, f) or town (Figures 2-2-5) was square, as was of the courtyard house, the dwelling unit.

Figure 2-2-4 a Han Dynasty Diviner's Board
(Needham, Science and Civilisation, Vol. 3, Chap. 20)

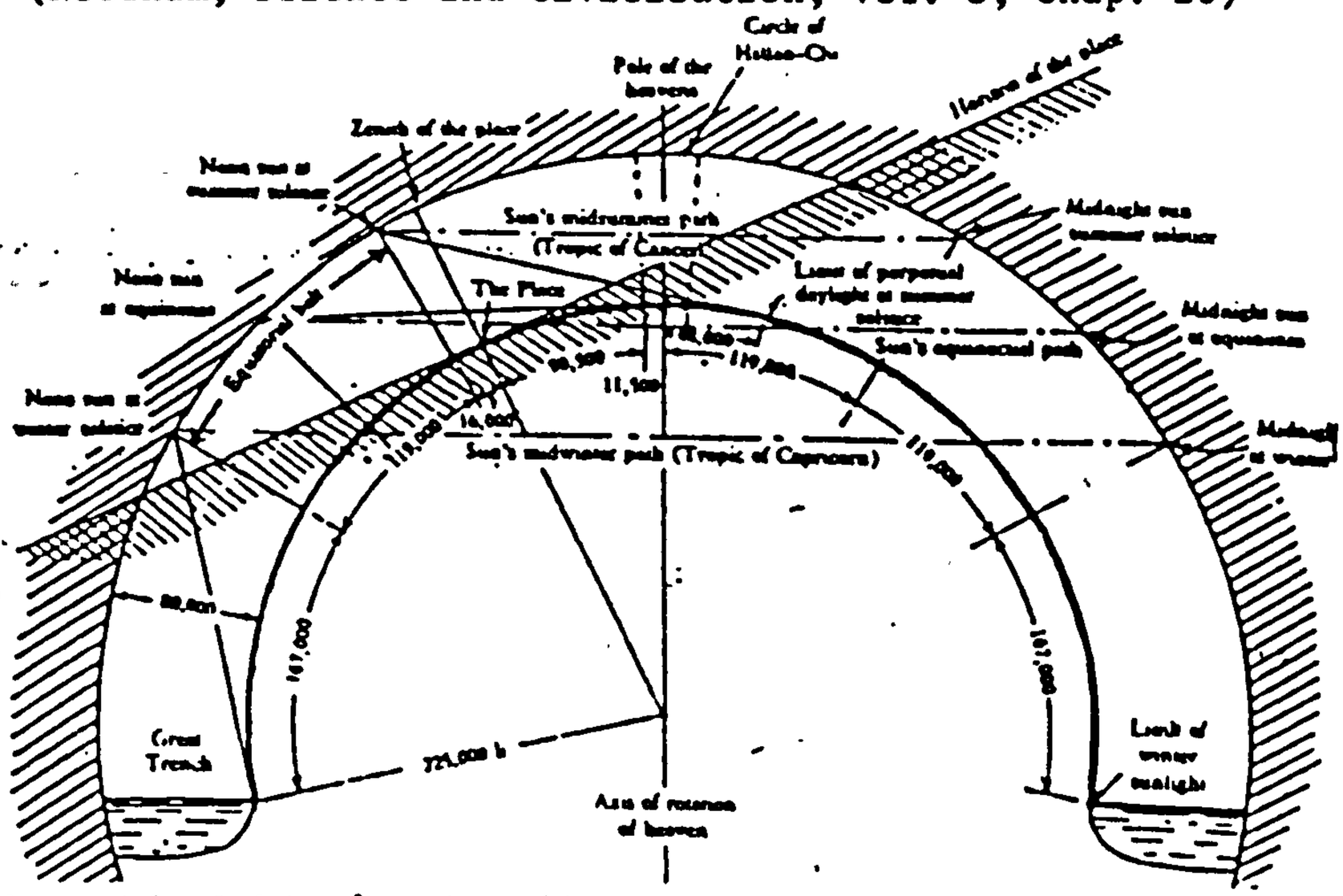
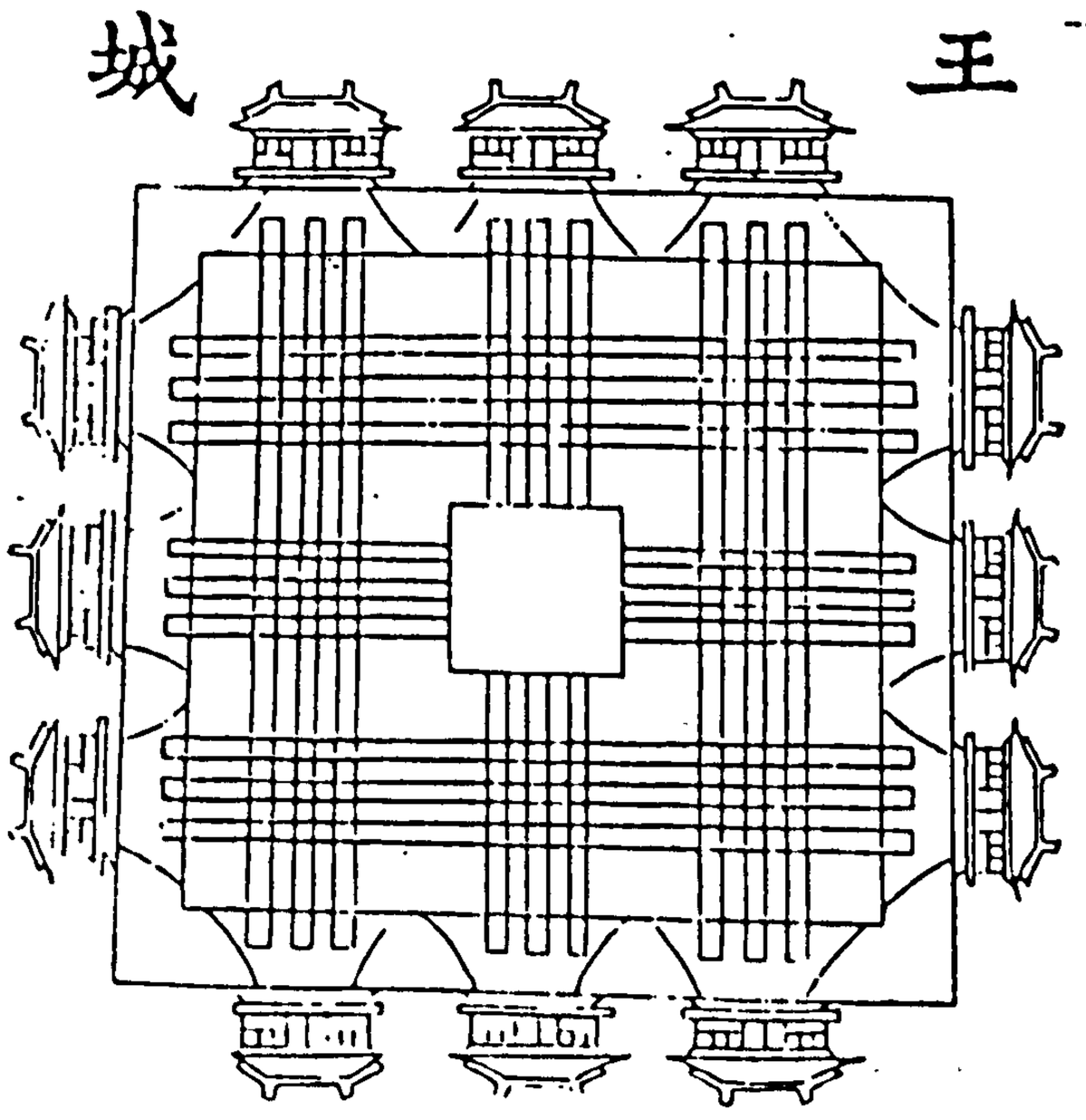
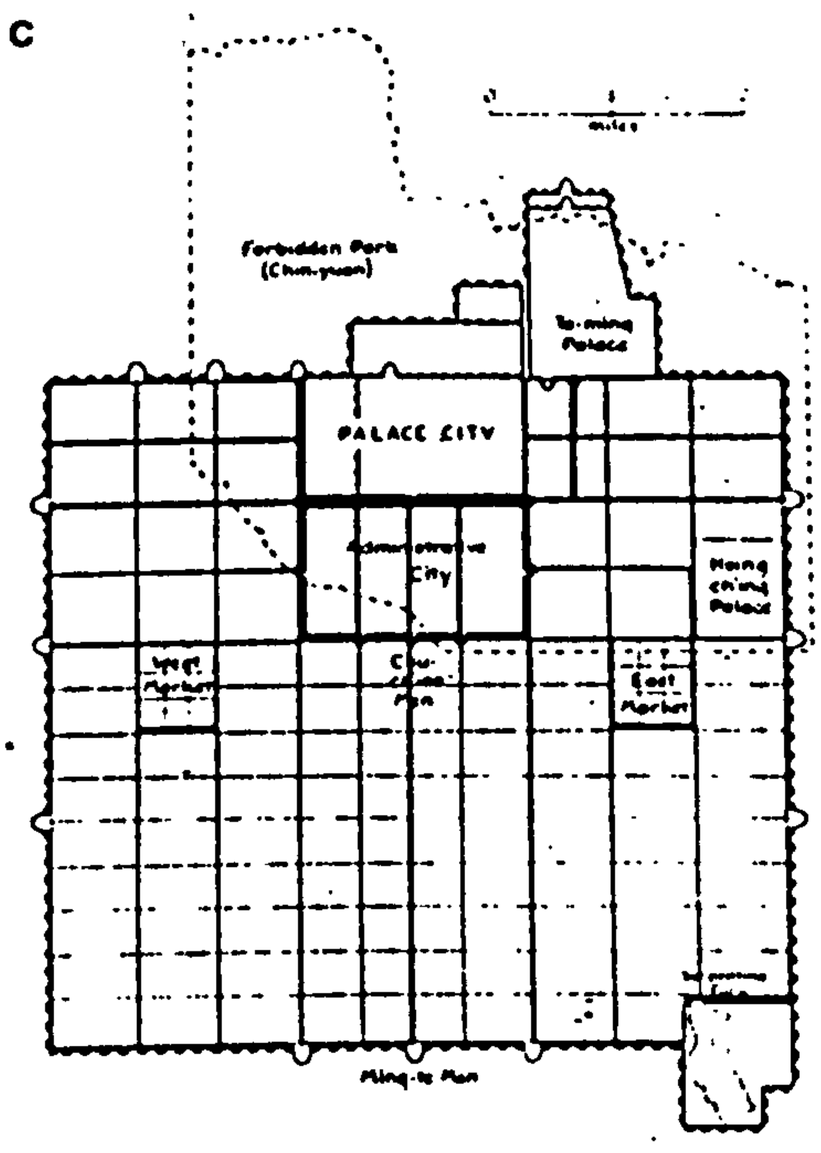


Figure 3-2-4 b Ideal king's city (from Lee Yün-Ho, 1982, p 378)

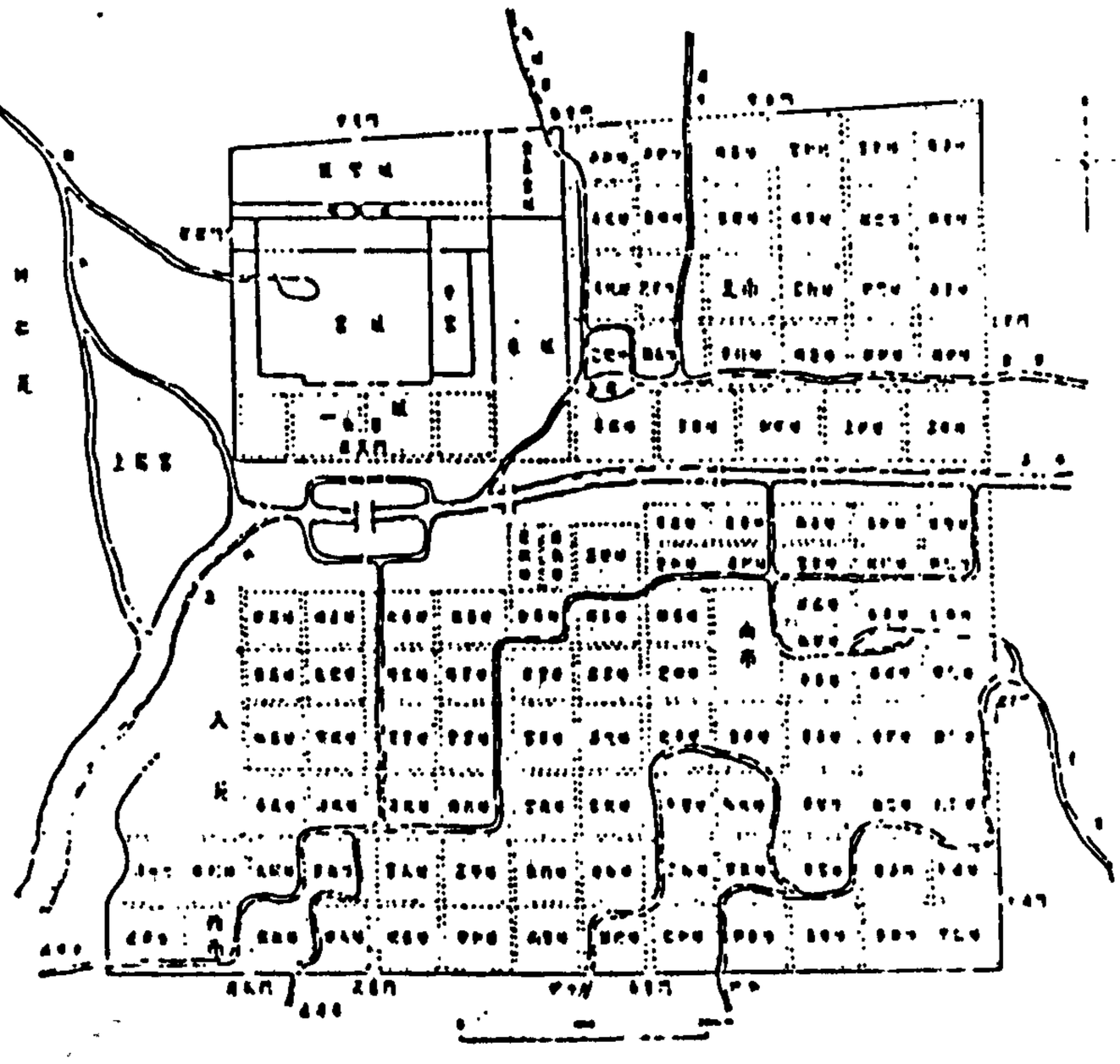


Diagrams 3-2-4 c. Tang Ch'ang An (Arthur Wright, 1977, p 58)
d. Sui and Tang Lo Yang (Liu Tun-Chen, 1978, p 114)
e. Northern Sung Kai Feng (Arthur Wright, 1977, p 61)
f. Ming Dynasty Peking (Arthur Wright, 1977, p 68)

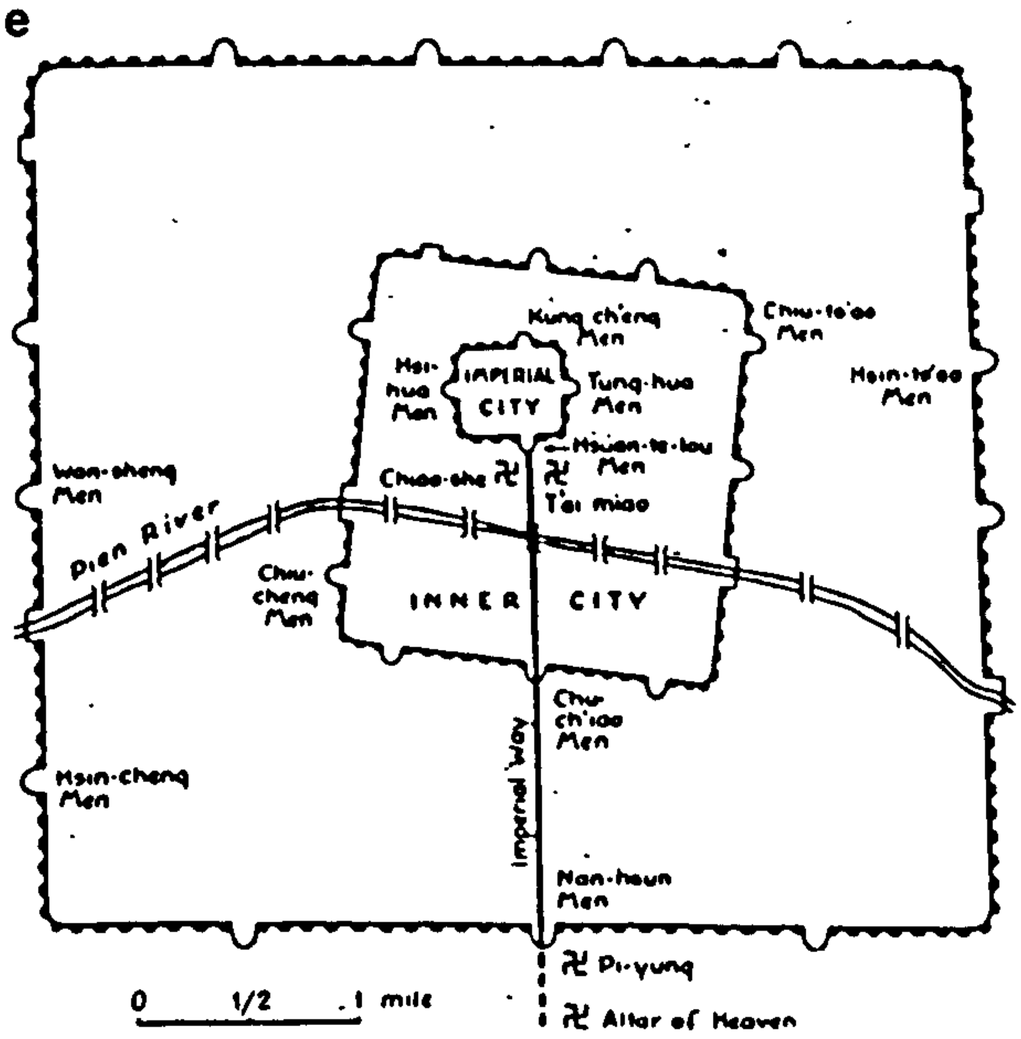
c



d



e



f

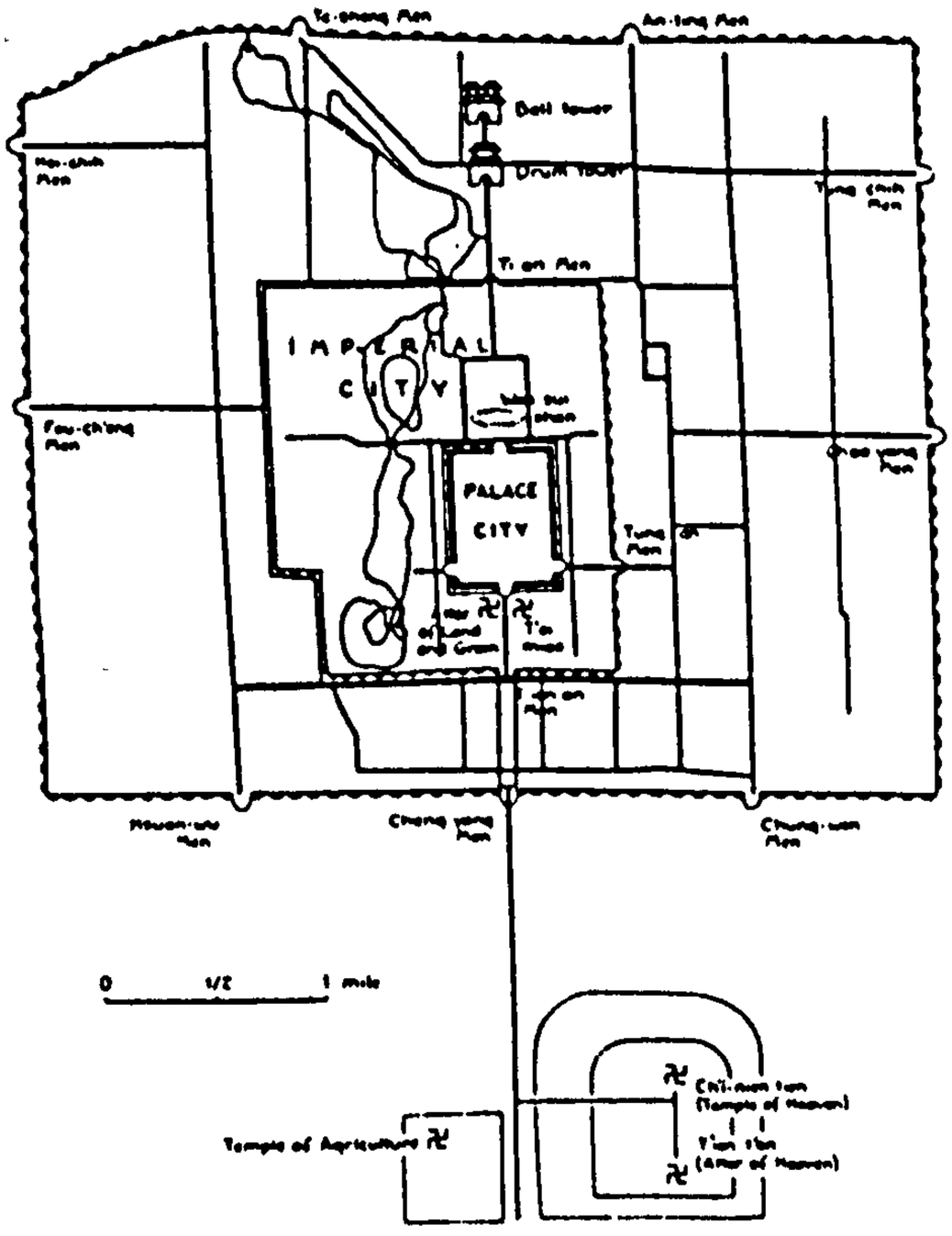
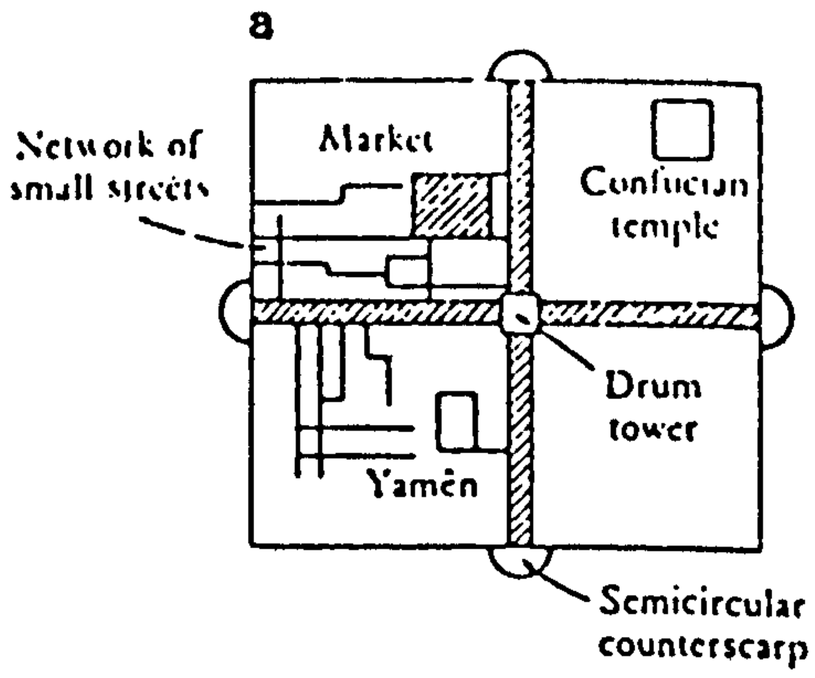
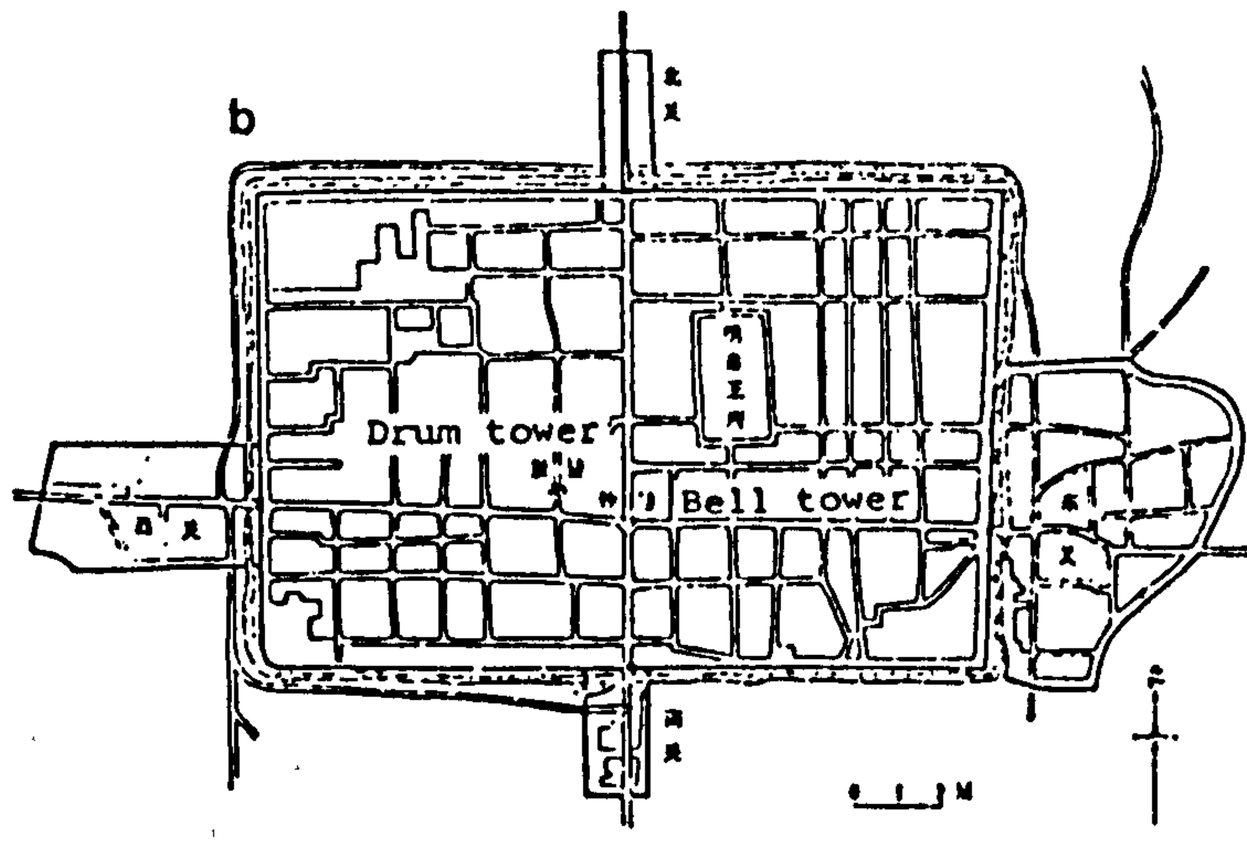
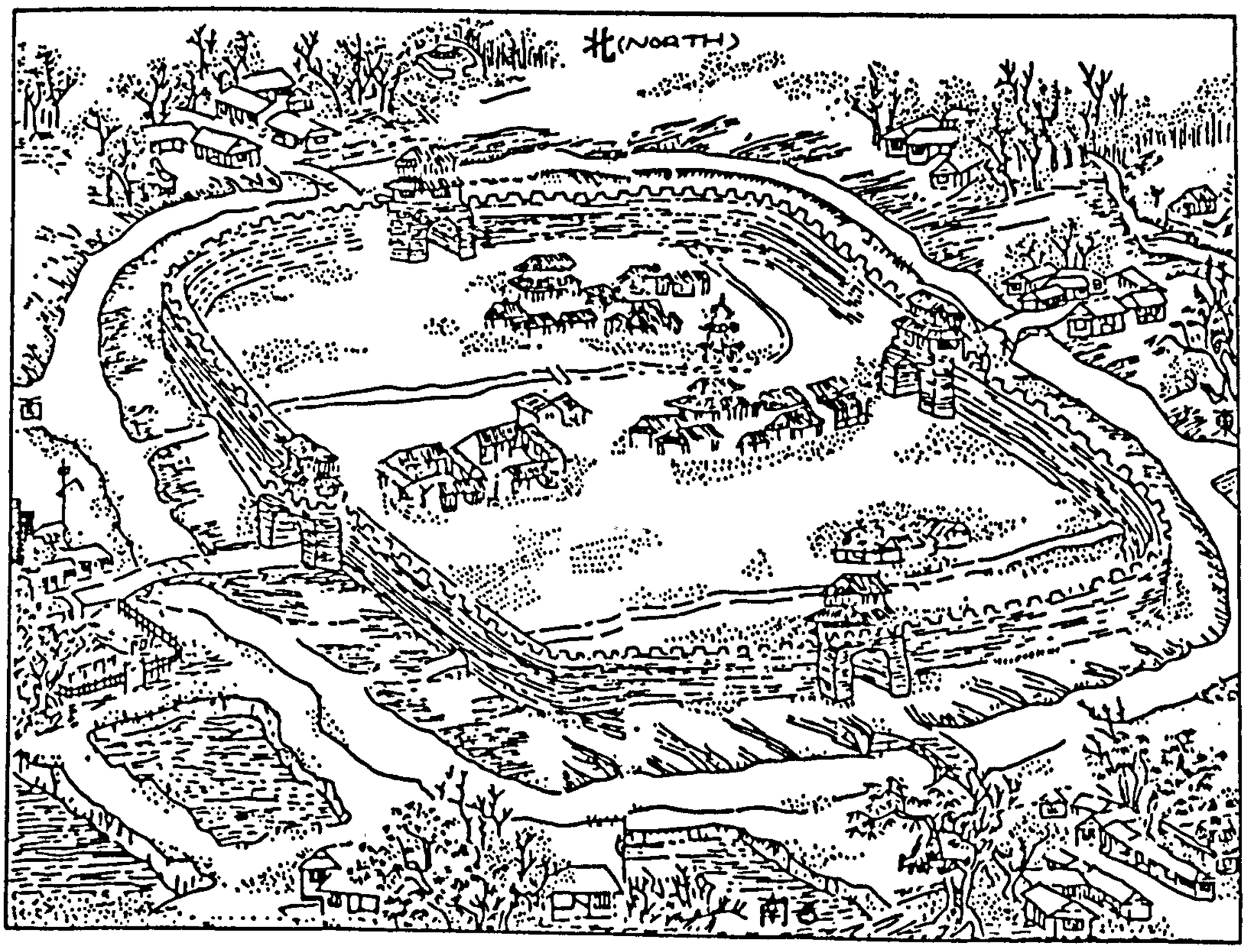


Figure 3-2-5 a. Typical Chinese town plan (Joseph Needham, Science and Civilisation, Vol. 4, Part 3, p 73)
b. Ching Dynasty Sian (Liu Tun-Chen, 1978, p 312)
c. Ching Chin T'ang Hsien (Paul Wheatley, 1971, p 424)





c



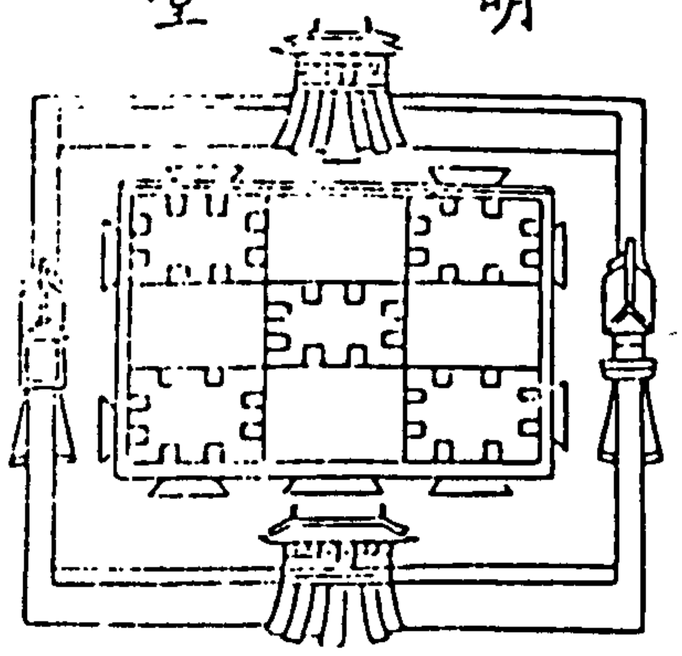
The square is also related to the Ming Tang, the royal Hall of Light in the Han Dynasty, where the Emperor's annual path of circulation passed through the different rooms in which he paid sacrifices during the months and seasons. According to Soothill:

> "These Rooms or Halls provided for a clockwise progression of the monthly sacrifices from the beginning to the end of the year...It was the duty of the ruler at each new moon to prepare himself according to certain rules, by ablutions, by eating special foods varying with the seasons, by wearing the garments of the seasons, and by performing various other duties required of him, to offer the monthly mimetic ceremonial associated with it, shoud be offered and performed in the right and proper direction" (1). (See Figure 2-2-6)

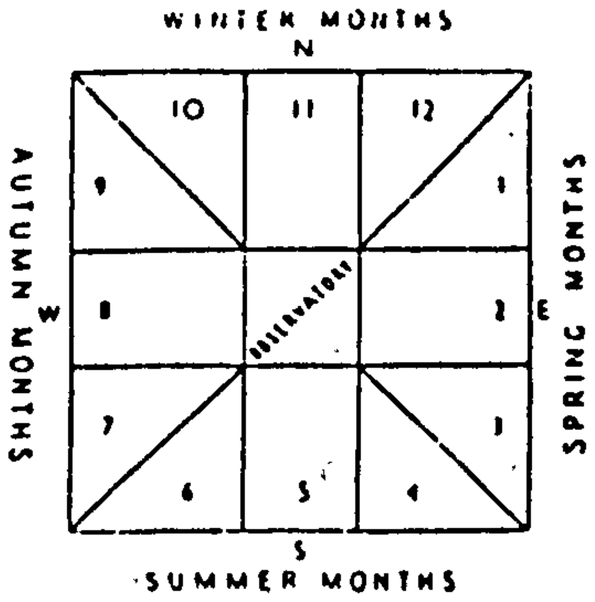
Figure 2-2-6 Ming Tang (a. Chou Li, "San Li Tu",
b. William Soothill, 1951, p 89
c. J.M. Huon de Kermadec, 1983, p 17)

Ming Tang

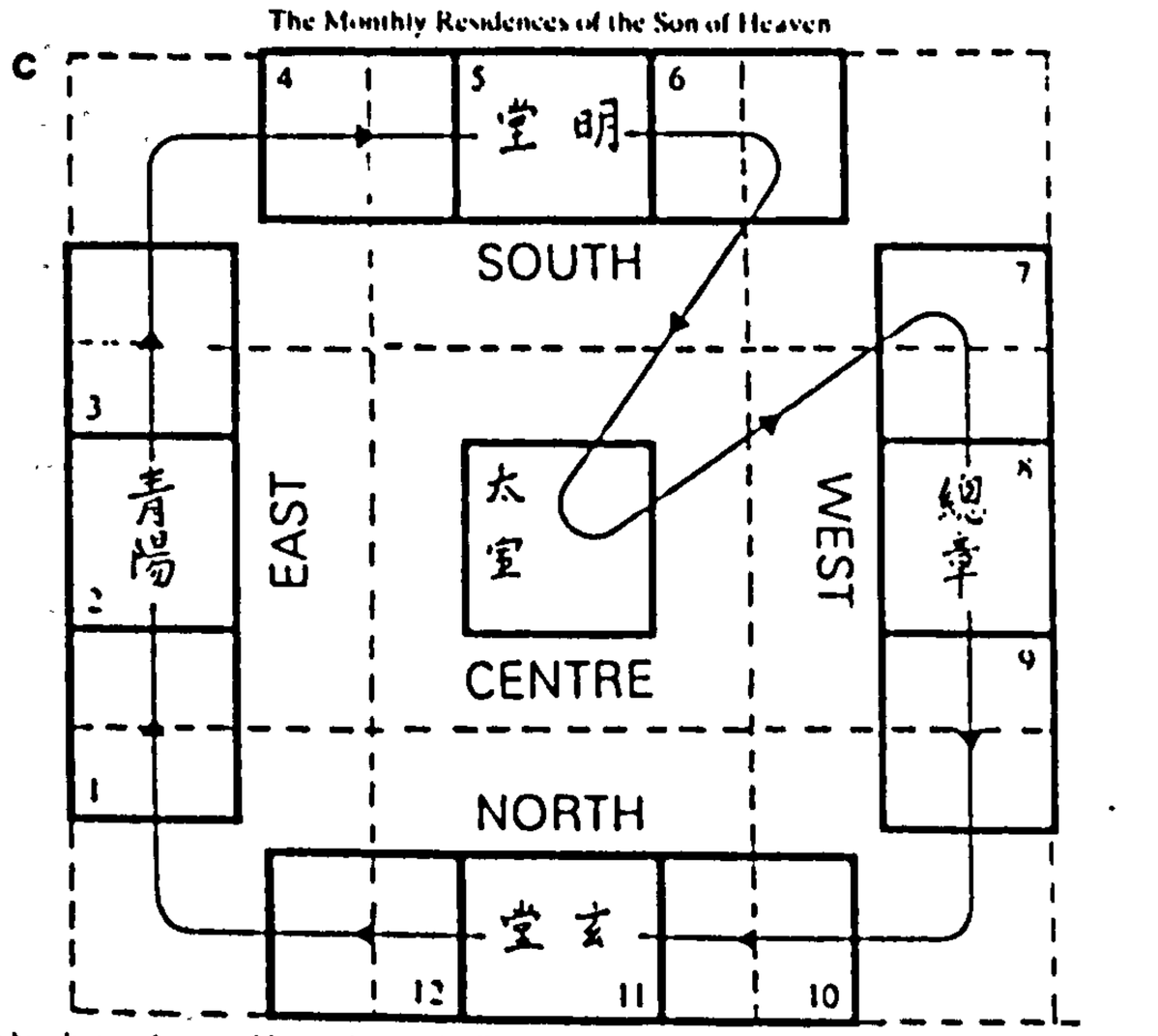
a



b



c

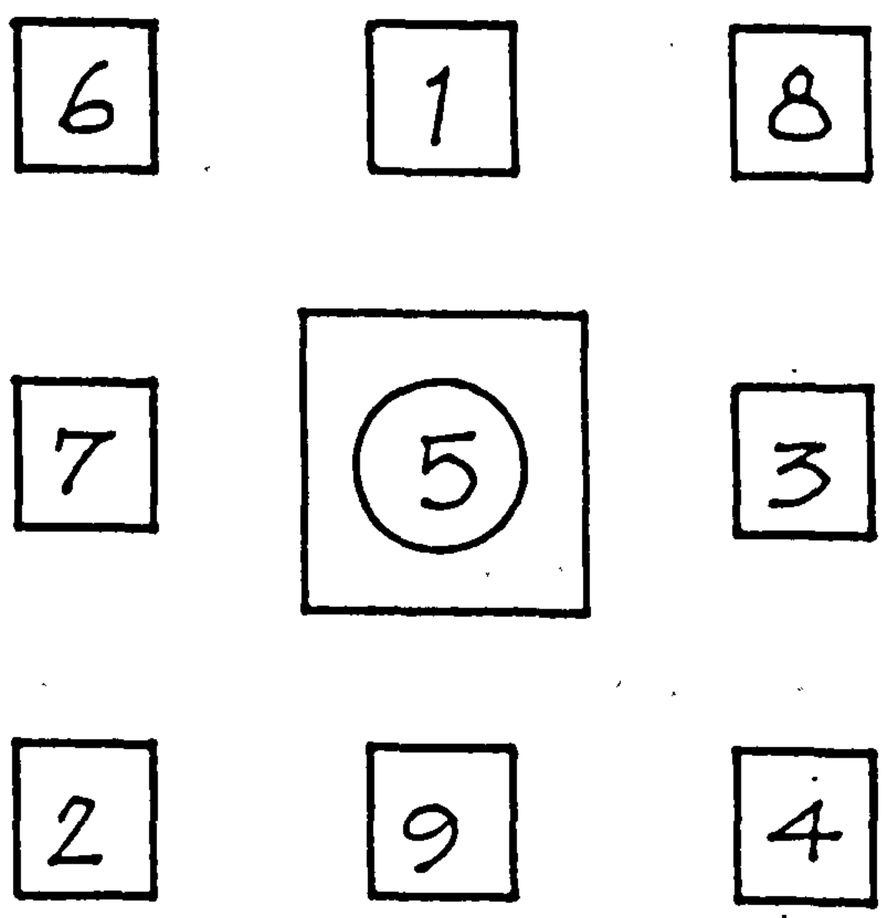


---

1) William Soothill, The Hall of Light, (London : Lutterworth Press, 1951), p 92

Already in the Chou Dynasty the structure of the Ming Tang had symbolised the universe, being square below (representing earth) and round above (representing heaven). (See Part 2) Accordingly, the nine halls of the Ming Tang in the Han Dynasty and thereafter symbolised the nine continents of the world. The harmony within the square of the Ming Tang containing the nine halls, or the world with its nine continents, was at the same time ensured by the application of the Lo Shu magic numbers. By placing the Lo Shu directly over the nine halls, each is represented by a number as follows: (Figure 2-2-7)

Figure 2-2-7 Ming Tang with Lo Shu numbers



Three was the number of heaven and multiples of three were considered lucky numbers. Nine constituted a whole, and was used to represent the whole of the universe as well as heaven, earth, the state, city, or the individual house (1).

---

1) See Tang Ching-Fan, 先秦哲學 Philosophy of the Early Ch'in Period (Hong Kong: Wen Ch'ang, 1958), p 95

In the case of the Lo Shu, the numbers in each row, be it vertical, horizontal or diagonal, add up to an auspicious number which is a multiple of three - number 15, which represented the endless cycle of the universe. It was said that in ancient times, the Ming Tang was surrounded by a type of red plant which grew one leaf a day, adding up to fifteen leaves on the fifteenth day. On the sixteenth day, the plant began to lose one leaf every day, with only the stalk remaining on the thirtieth day. The next day a leaf would grow again, continuing the cycle of life which, like that of the universe, could not be destroyed (1).

Granet explained the importance the Chinese placed on the application of numbers:

> "It is by means of numbers that one finds a suitable way to represent the logical sectors and the concrete categories that make up the universe....In choosing for them one or another disposition which permits them to demonstrate their interplay, one believes he has succeeded in rendering the universe at once intelligible and manageable" (2).

2. The analogy between the universe, house and man

A passage in Huai Nan Tzu compares heaven to a human being:

> "Heaven has the four seasons, Five Elements, nine divisions (3), and three hundred and sixty days. Man likewise has four limbs, five viscera, nine orifices, and three hundred and sixty joints. Heaven had wind, rain, cold and heat, and man likewise has (the qualities of) accepting and giving, joy and anger. Therefore the gall corresponds to clouds, the lungs to vapor, the speen to wind, the kidneys to rain, and the liver to thunder. Thus man forms a trinity with Heaven and Earth, and his mind is the master. Therefore the ears and eyes are as the

---

1) Ta Tai Li Chi (Book of Rites of the Elder Tai), Chapter on Ming Tang
2) Marcel Granet, "Les Nombres" in La Pensee chinoise, quoted in Arthur Wright, "The Cosmology of the Chinese City" in The City in Late Imperial China, ed. by William Skinner, (Stanford: Stanford Univ. Press, 1977), p 48
3) The nine divisions consist of the eight compass points and the centre as the ninth.

sun and moon, and the humors of the blood as wind and rain" (1).

The people of the Han dynasty regarded Heaven and Earth as a large cosmos and the human body as a microcosm, a reflection of the universe. By the same token, man's living environment, including the state, city, and dwelling (2) occupied an area between these two; they were also regarded as reflections of the cosmos, smaller than the universe and larger than the human body (See Figure 2-2-8).

This analogy was an important concept in the arrangement of the Chinese living environment. They believed that man, his social environment (includung the living environment) and the cosmos shared a system of coordinates. Within this system, all things had their proper position on earth, and were echoed one to one in celestial objects. Furthermore, as Needham explains, this meant that the moral behaviour of human actions on earth found their parallel in the behaviour of heavenly bodies (3). By the same token, affairs in the human world which did not follow the cosmic order turned to calamity and misfortune. This represented the unity

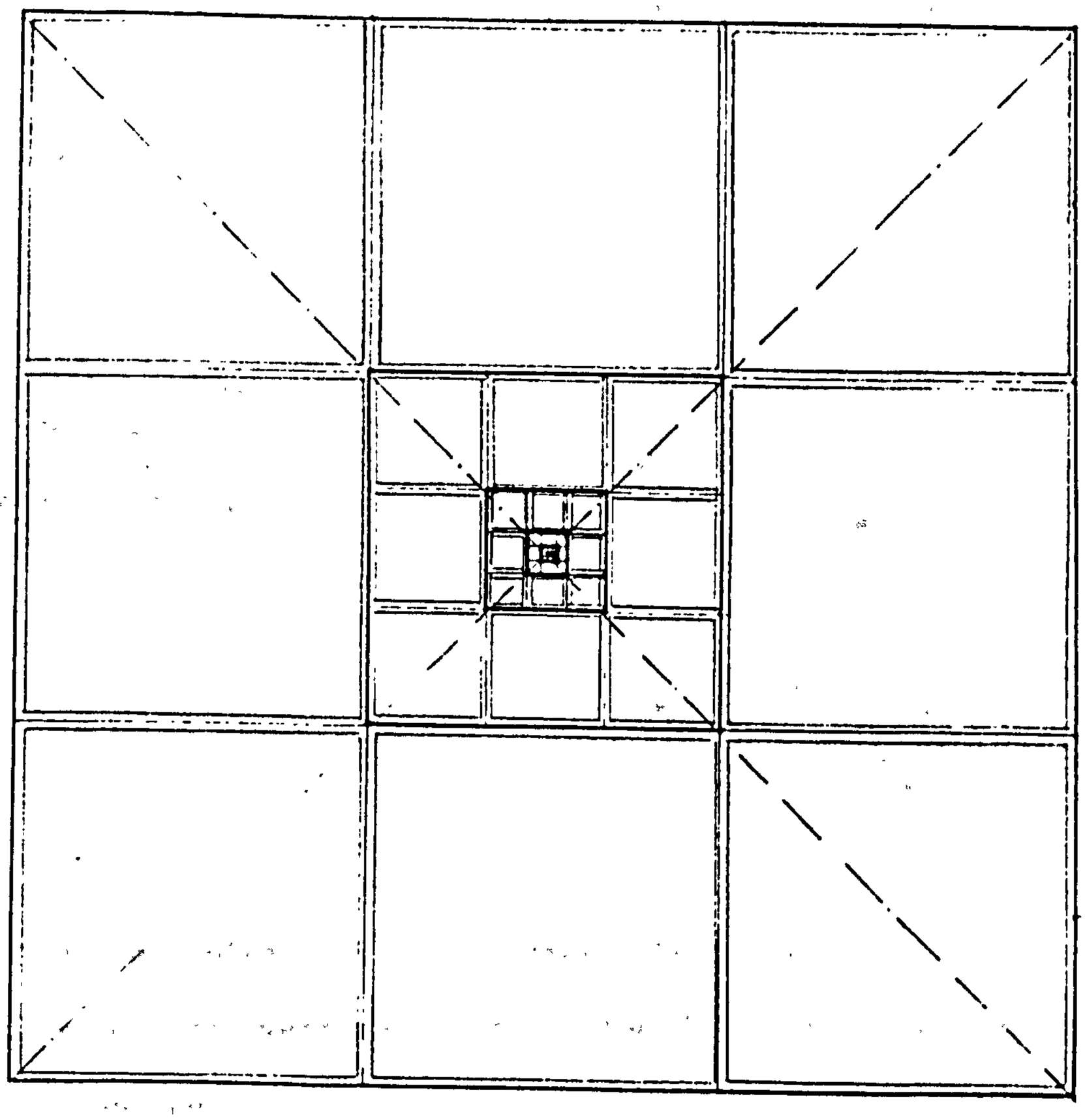
---

1) Huai Nan Tzu, Chapter VII, in Fung Yu-Lan, Vol. 1, p 399
By regarding the human body as a microcosm or its representative three by three square, we arrive at a further interpretation which relates the numbers of the Lo Shu or nine halls to the human body: "Two and four are the shoulders, six and eight the feet, three is on the left and seven on the right; nine is the head and one the shoes, while five is in the middle." Chen Luan, Shu Shu Chi I

2) A passage from Shuo Wen also describes the Chinese word for universe - yu - as "the four sides of a house's canopy" (屋四垂曰宇) while the earliest definition of yu, found in the I Ching, is given a practical function: "Building with ridge pole (dung) in the upper part of houses and constructing the shelters (yu) in the lower part of the houses in order to protect the people from wind and rain" (上棟下宇以避風雨). This shows the close relation between the Chinese idea of the universe and house.

3) Joseph Needham, Science and Civilisation in China, Vol. 2, Chapter 13, Section C, p 232

Figure 2-2-8 Plan of Hierarchy (based partly on Mary Danielli, 1952, p 211)



of heaven and earth in the cosmic pattern.

3. Harmony with the cosmos as the principle in constructing the Chinese living environment

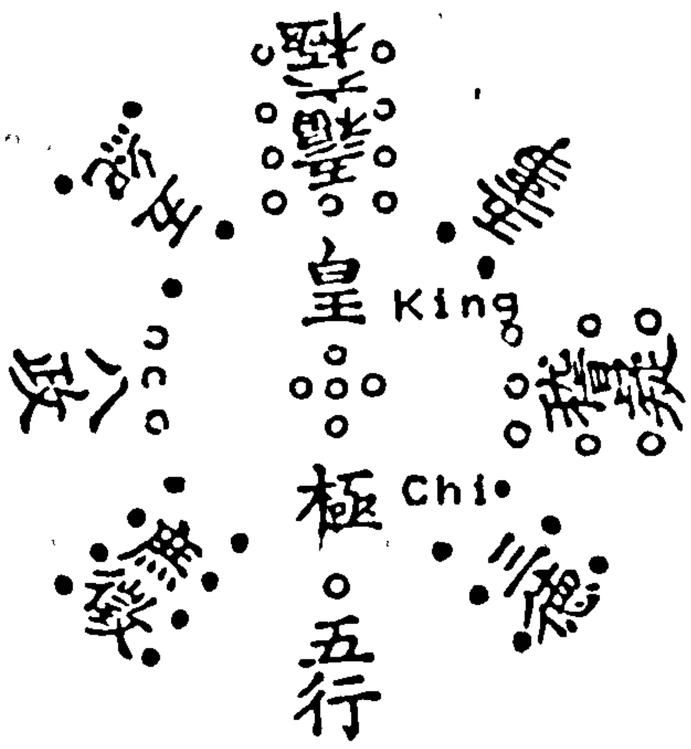
The Chinese in the Han Dynasty placed their world at the centre of the universe, their state at the centre of the world (hence the name Middle Kingdom or Chung Kuo), and their king (highest of all men) at the centre of the state. The central point the king occupied was known as Chi, which was also the central point of the

universe. (See Figure 2-2-9) As Needham writes:

> "The celestial pole (Chi) corresponded to the position of the emperor on earth, around whom the vast system of the bureaucratic agrarian state naturally and spontaneously revolved. For this there was high Confucian authority in Lun-Yu. The master said: 'He who exercises government by means of his virtue may be compared to the pole star, which keeps its place while all the stars turn around it'" (1).

Figure 2-2-9

The king as the centre of the universe. (from James Legge, The Chinese Classics, Vol. 3, p 325)



To harmonise the capital with the cosmos, the walls surrounding the square-shaped capital were built facing the four directions, north, east, south and west. At the centre of the capital was located the king's palace. All measurements within the capital were multiples of the number of heaven, three. The city was divided into a Yin and a Yang section, the southern half being Yang and the northern half Yin. The main facilities were situated in either section according to their category, e.g. the market was situated in the Yin section (maybe so that the king located at the centre of the city would not have to face what was regarded as lowly in traditional China) while the court was in the Yang section. Two places of worship were

---

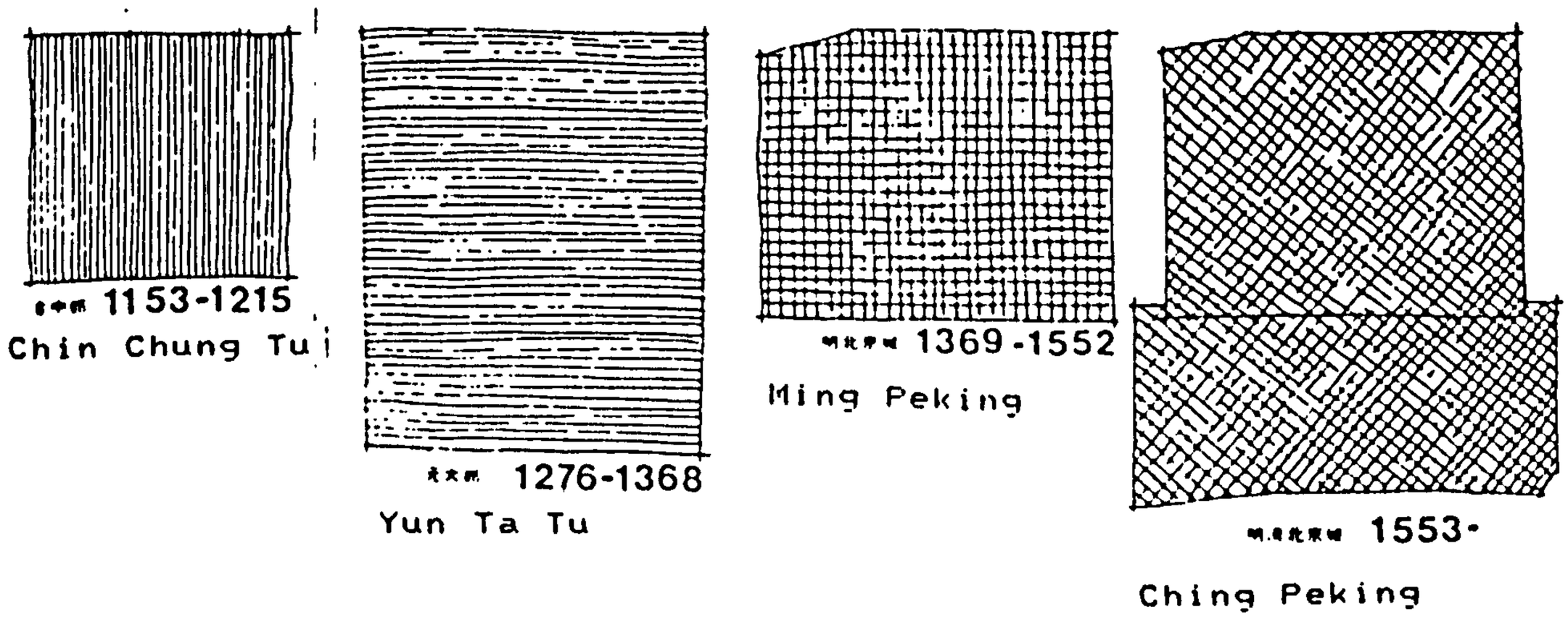
1) Needham, Vol. 3, Part 2, Chapter 20, Section e (為政以德,譬如北辰,居其所而衆星拱之); for a more detailed discussion on the celestial pole, see Tang Chin Fan, The Philosophy of the Early Chin Period, p 96-104

located in the Yang section - the ancestral altar in the east and the altar of the guardian god in the west. Outside the eastern city wall was the place of worship for the Sun God, while the Moon God was worshipped outside the western city wall. The cosmic House outside the southern city wall was used for the worship of Heaven (1).

This method of harmonising the capital with the cosmos was an ideal situation which was attempted in all the dynasties of the traditional period but not always fully realised, owing to different interpretations in the various dynasties, the geographical conditions of different locations and the uneven development of the capital. (See Figure 2-2-10)

Since man's immediate living environment was also regarded as a microcosm, the construction of a dwelling which harmonised with the universe and man himself (i.e. the inhabitants) became a main concern in the building of houses, reaching its peak in the Tang Dynasty and lasting at least until the end of the traditional

Figure 2-2-10 The development of Peking through four dynasties (from Li Yun-Ho, 1982, p 393)



---

1) See Li-Chi, Chapter on Kao Kung Chi

period. Harmony of the dwelling with the universe and man was achieved by applying cosmic rules and performing proper rituals in the construction and use of the house. They included:

a. The construction of the house according to the cosmic framework

b. The correct orietation and location of the front door

c. Systematic rituals accompanying various steps of construction

d. Application of the ideal measurement to the house.

These four points form the cosmology of houses during and after the Han Dynasty. They will be discussed individually in this and the next chapter.

2.2.3. The cosmic framework in the traditional period

The "cosmic framework" was the idealised structure of the universe in the minds of the Chinese during and after the Han Dynasty (1). The Chinese understanding of the forces at work within the universe was not arrived at scientifically; rather, it arose out of the people's subjective interpretation of natural phenomena combined with their inner consciousness and traditional views. The Chinese strongly believed in the analogy between the macrocosm and the microcosms (including the state, city, house and man) and the reflection of one in the other. Thus the cosmic framework was formed out of the collective knowledge and beliefs of intellectuals in their search for the basic pattern of the universe, which was then applied in the planning and construction of the state, cities and houses.

Needham contends that in their search for harmony and order, the Chinese "developed their organic aspect, visualising the universe as a hierarchy of parts and wholes, suffused by a harmony of wills" (2). Therefore the Chinese considered harmony to be a basic principle of world order. Paul Wheatley says that "the pre-established harmony of the Chinese universe" was "achieved when all beings spontaneously followed the internal necessities of their own nature" (3).

As the cosmic order is formed through the harmony in the relation-

---

1) Ancient books which briefly touched this subject include: Szu Ma Kuang, The Hidden Hsu (潛虛論); Shao Yung, Political Theories of the Emperor (皇極經世); Chao Shuo Chih, Notes on the Stars of I (易玄星紀譜); Tsai Shen, The Great Plan of the Emperor (洪範皇極)
2) See Needham, Vol. 2, p 285
3) Paul Wheatley, The Pivot of the Four Quarters, (Edinburgh: University Press, 1971) p 418

ship among all things in the universe, scholars searched for explanations of the relationship between individual phenomena, which could be expounded by the interaction among the elements of the cosmic framework.

2.2.3.1. The cosmic framework as the only prototype of Chinese houses

Three main reasons for the consecrating of Chinese houses have already been discussed in the preceding chapter on the Three Dynasties - Hsia, Shang and Chou. This thinking, which first appeared during that period of Chinese history, continued until the Han Dynasty and became merged with the cosmic framework. They are:

1. Delimitation of the residential area. In order to transform the residential space from chaos to order, it was necessary to delimit the residential area. The delimitation fixed the boundary of a "sacred" area within chaos; only after performing certain rituals which consecrated that area did it become habitable.

2. The inseparability of houses from rituals. Starting from prehistoric China, residences and rituals were always intimately connected. This became a special feature of later traditional houses, in which residential space and worship space coexisted under the same roof. The house was at the same time a home and a temple, even though the objects of worship changed with the passage of time.

3. Imitation of a celestial archetype. The desire to attain order and harmony on earth was achieved by reproducing on earth a reduced version of the cosmos. Thus the construction of microcosms (state, city, and house) followed the order of the universe.

Chinese houses in the traditional period were the joint creation of the inhabitants, Feng Shui masters and craftsmen, and were developed according to the cosmic framework (See Part 2, Chapter 3). It was believed that only by complying with this idealised cosmic structure was it possible to maintain order on earth. If the position of an earthly object or person did not correspond to its celestial counterpart, it meant that the order had been disturbed by man and not by nature, and that misfortune was imminent. This was most undesirable and to be avoided at all times; what the Chinese sought was stability, fortune and wealth, high official position, rich harvest and longevity. They believed that these could only be ensured by residing in an environment which followed the principles of the cosmic framework (1).

Patterned after one archetype, Chinese houses closely resembled each other in most respects. As we had discussed in Part 1, Chapter 2, their spatial organisation consisted of one or more courtyards surrounded on all sides by linear rooms, while the main rooms in all the houses were usually located at the same position. While we cannot contend that the influence of the cosmic framework on the form of houses was absolute, its common use as a blueprint for Chinese houses during the traditional period cannot be denied. This shall be the main theme of the next chapter.

2.2.3.2. The components of the cosmic framework and their organisational principle

The components which form the cosmic framework consist not only of

---

1) For a better understanding of the Chinese mind, refer to Francis Hsu, Under the Ancestors' Shadow, (Stanford: Stanford University Press, 1971), Chapter 9

Yin and Yang (the two fundamental forces in the universe) and the Five Elements (of which all things are composed), but also of Nine Halls, heavenly numbers (three and its multiples), four seasons, eight cardinal points, four guardian animals (blue dragon, white tiger, black turtle and red bird) and the emblems (eight trigrams and sixty-four hexagrams). Together, these components of the cosmic framework helped the Chinese in their construction of a more ideal residential environment (See Part 2, Chapter 3).

These components were organised and connected to form the cosmic framework through a characteristic thought-form - correlative thinking, a term used by Needham to express this conspicuous characteristic of the Chinese mind (1). By means of this thinking, all things and ideas, natural or man-made, are grouped into neatly arranged sets of numerical categories (2).

Correlative thinking is mainly the association of ideas based on people's intuition. Analogy, which we mentioned before, is one of its main characteristics. In correlative thinking, conceptions are not subsumed under one another, but placed side by side in a pattern, and things influence one another not by acts of mechanical causation but by a kind of induction. Since events to Chinese minds are connected rather than caused, the idea of correspondence has great significance and replaces the idea of causality. Only objects in the universe which belong to the same category are able to resonate or energise each other, and this took place naturally and automatically (3).

---

1) See Needham, Science and Civilisation, Vol II, Chapter 13, Section f, p 279-303
2) Derk Bodde, China's Cultural Tradition, (New York: Holt, Rinehart and Winston, 1957) p 36
3) ibid

2.2.3.2.1. Emblems - trigrams and hexagrams

The one main component of the cosmic framework which has not yet been discussed is the emblems (象). The Chinese attribute certain characteristics and fortunes to each emblem; the appearance of a specific emblem acts as an indication of the likelihood and outcome of events which are imminent. Appendix III of the I Ching says:

> "As to the emblems, the Sages used them in surveying all the complex phenomena under the sky. They then considered in their mind how these could be figured, and made representations of their appropriate forms, which are hence designated emblems" (1).

The Chinese practice of abstracting all natural phenomena (such as those observed in animals and plants, meteorological and astronomical events, inexplicable sensations or involuntary movements) led to the induction of all the processes of nature into a geometric diagram. The various components within the diagram were interrelated through a self-sufficient cosmic system which was explained by simple and elementary notions, which were sometimes abstract. The emblems represented only one of the geometric diagrams, but they became the longest lasting and most influential symbols of Chinese culture.

The emblems were recorded in the I Ching (Book of Changes) and are composed of long and short lines. The long unbroken line represents male or Yang, while the two short broken lines represent female or Yin. These are the two basic units of the universe (2). The eight Trigrams were formed from all the possible permutations and combinations of three lines. See Figure 2-2-11.

---

1) See Fung Yu-Lan, A History of Chinese Philosophy, Vol. 1, p 390
2) Three possibilities for the origin of the lines are counting nodes, long and short sticks used in divination, or the cracks formed in the tortoise shell of early divination. See Fung Yu-Lan, ibid, p 382

Figure 2-2-11 Eight Trigrams

k'un	(earth)	☷	ch'ien	(heaven)	☰
sun	(wood, wind)	☴	ch'en	(thunder)	☳
li	(fire, sun)	☲	k'an	(water, moon)	☵
tui	(marsh)	☱	k'en	(mountain)	☶

According to Appendix V of the I Ching:

> "Ch'ien is Heaven...K'un is Earth...Ch'en is thunder...Sun is wood and wind (1)...K'an is water...and is the moon...Li is fire ...and the sun...K'en is mountain...Tui is marsh" (2).

Elements of the natural world are thereby attributed to one of the Eight Trigrams (3), while all the possible combinations of two trigrams form the 64 Hexagrams, which are the actual and complete emblems. A hexagram is the final product of the process of interrelation between two trigrams, and conveys the result of this reaction (4). The entire I Ching is an explanation of the 64 hexagrams and their implications (See Figure 2-2-12).

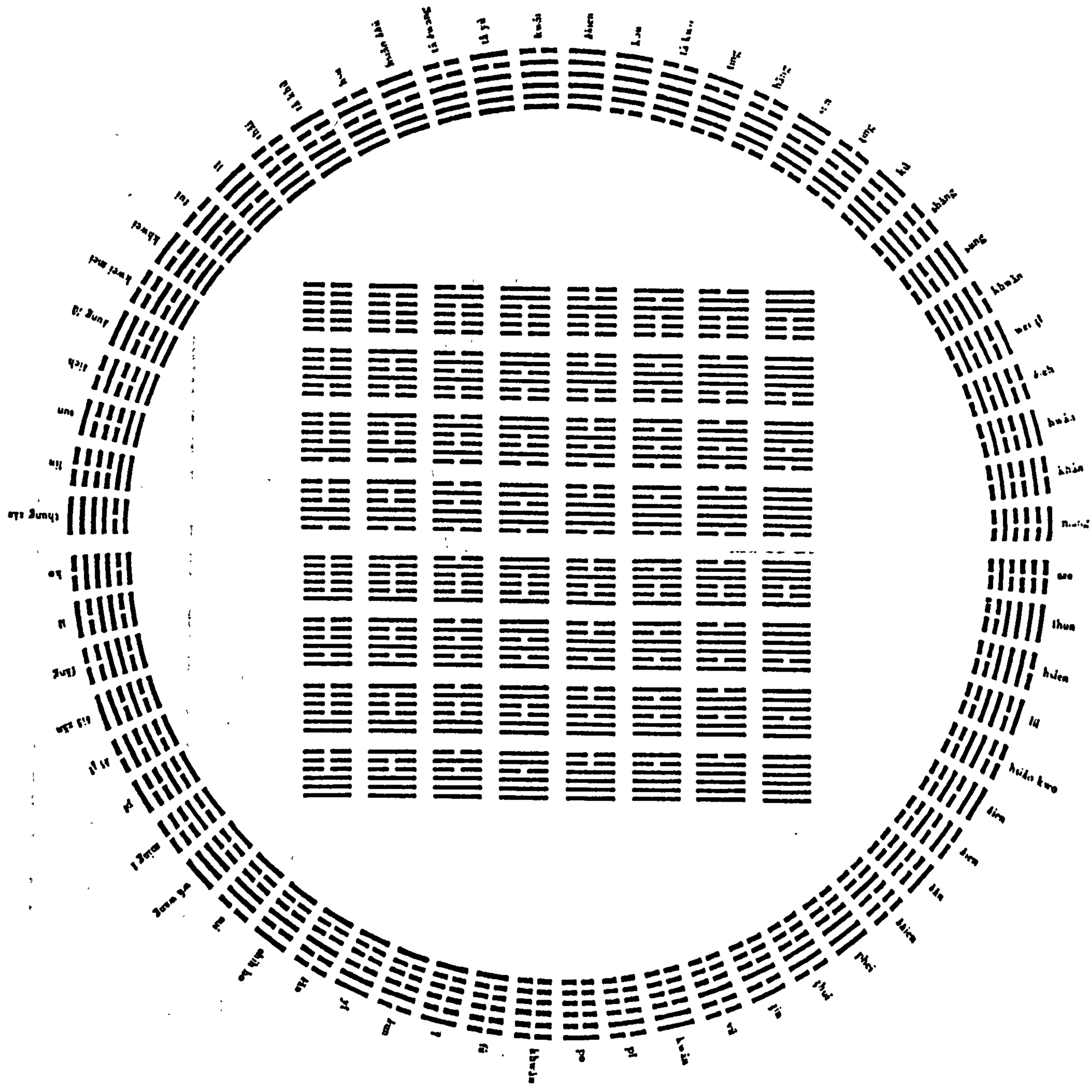
To Chinese minds, all things and events in the universe were dynamically interrelated. All phenomena of change and transformation in the world could in some way or other be related to human events. Owing to this thinking, it was of great importance for the Chinese to correctly diagnose the position and role of man in the universe.

---

1) Wind was mistakenly translated in Fung Yu-Lan as rain.
2) See I Ching, Appendix V, in Fung Yu-Lan, A History of Chinese Philosophy, Vol. 1, p 382
3) As Fung Yu Lan explains: "The greatest things in the universe, in short, are Heaven and Earth. In Heaven, the objects most noteworththy to man are the sun, moon, wind, and thunder; on Earth they are mountains and marshy lowlands; and the things most used by man are water and fire. The ancient Chinese regarded these objects as forming the constituents of the universe, made the eight trigrams correspond to them". See Fung Yu-Lan, A History of Chinese Philosophy, Vol. 1, p 383
4) See Lao Tse-Kuang, History of Chinese Philosophy (中國哲學史), Vol 1, Chapter 1, p 9-10

Figure 2-2-12 64 Hexagrams

The hexagrams are here exhibited circularly and in a square, representing events in both heaven and earth



The role of the emblems in the cosmic framework was to give a coordinative explanation for all the events which take place in the universe. The emblems were believed to be incorporated in nature, claiming the ability both to ascertain man's place in the cosmic structure and to provide him with a guide to conduct within each unique situation.

2.2.3.2.2. The organisational principle of the cosmic framework

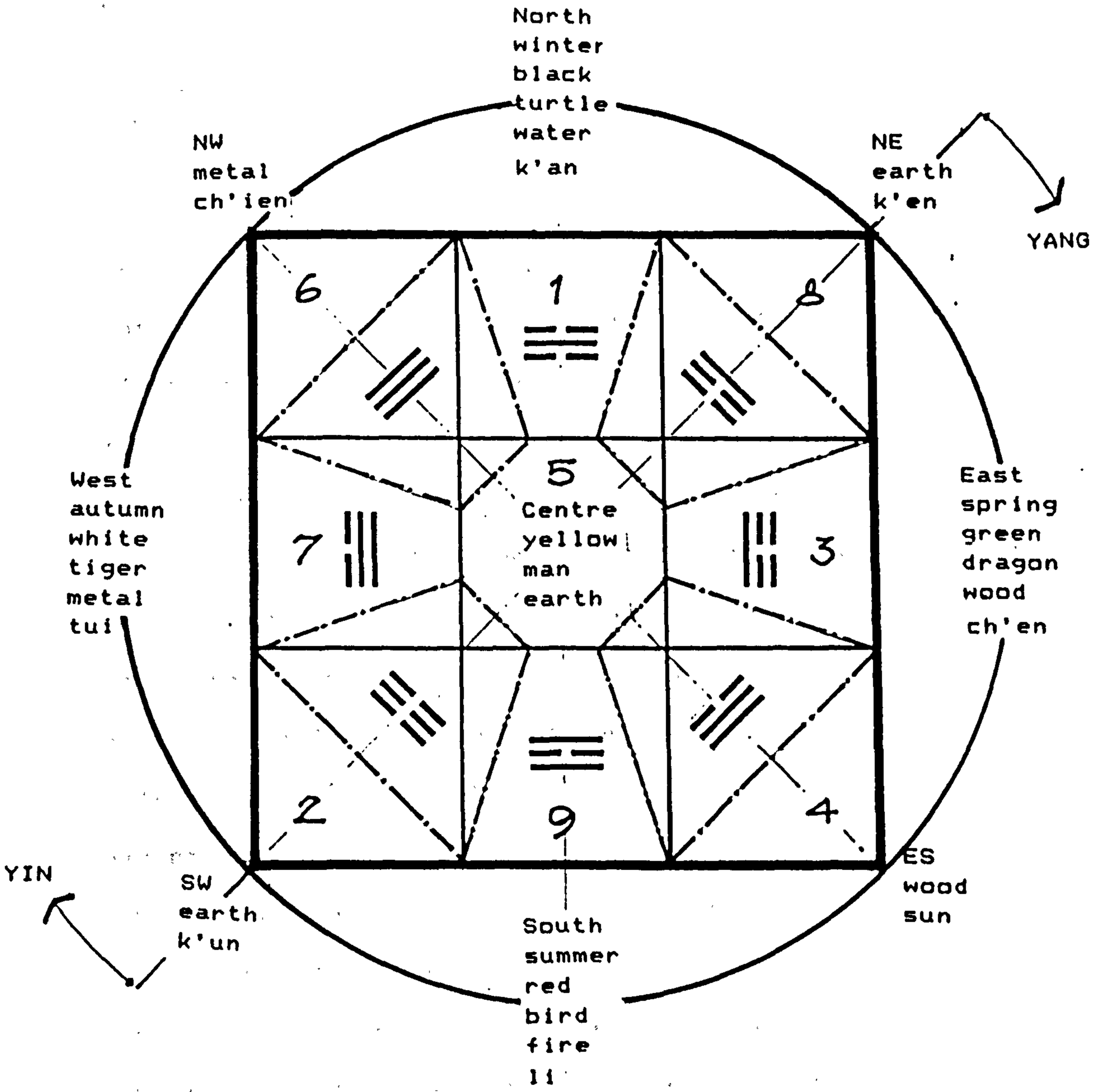
If the cosmic framework is presented in the form of a chart, the different components would be related in the following manner:

directions	North	NE	East	ES	South	SW	West	NW	Centre
seasons	winter		spring		summer		autumn		
colours	black		green		red		white		yellow
animals	turtle		dragon		bird		tiger		man
five elements	water	earth	wood	wood	fire	earth	metal	metal	earth
numbers	1	8	3	4	9	2	7	6	5
trigrams	k'an	k'en	ch'en	sun	li	k'un	tui	ch'ien	
yin or yang	yin	yin/ yang	yang	yang	yang	yang/ yin	yin	yin	yin/ yang
nine halls	head	left shoulder	left hand	left foot	shoes	right foot	right hand	right shoulder	body

However, if the cosmic framework is presented in the form of a diagram, the interrelations between the different components can be shown more clearly. See Figure 2-2-13

I shall now explain why the components were connected in the cosmic framework as in the diagram:

Figure 2-2-13 The cosmic framework



The cosmic framework has as its main coordinates the position of the four directions (north, east, south and west) and the central point, while northeast, southeast, southwest and northwest are the sub-coordinates. As William Willetts explained, it was believed that the

> "Four Quadrants into which the vault of Heaven was divided, surrounded the circumpola Central Palace of the Supreme ruler Tai I (Great Unity), just as upon Earth, the Four Directions of terrestrial space (t'ien hsia, "under heaven") surrounded the palace of the Emperor" (1).

1. Spring brings easterly winds, which carries with it vitality; this vitality enables plants to grow, turning nature into a field of green (thus the cor responding element wood). This peaceful image is symbolised by the dragon, representing the scaly animals, which include fish, reptiles and snakes. Spring, a season of Yang ascendance, marks the beginning of a new Chinese year; it is the season of fertilisation in which farmers are devoted to their business of agriculture. Killing (for sacrifice) is forbidden in this season as a sign of reverence to nature. The trigram which corresponds to east is ch'en, representing thunder, as spring in China is characterised by heavy thunderstorms caused by the return of monsoons (2).
2. Warm winds from the south bring frequent showers in summer, and the heat of this season is represented by the element fire. The red colour of fire therefore corresponds to south, as does the legendary red bird, regarded as the king of the feathered, which migrates to the south every summer. The apex of Yang is at

---

1) William Willetts, Chinese Art, Volume 2, p 270-1
2) This and the following explanations are based on I Ching, Appendix V; Needham, Science and Civilisation, Vol. 2, Chapter 13, Section c, pp 247-252 and Section d, pp 261-264, while the explanations of trigrams are based on Evelyn Lip, Chinese Geomancy, (Singapore: Times Books International, 1979)

midsummer, correlating with the period when the sun is at its strongest. The trigram of south is li, identified with brightness.

3. Autumn of the year is comparable to sundown of the day, when the sun is in the west. Autumn, a time of Yin ascendance, is the season of harvest and hunting, when animals are slaughtered for sacrifice. Metal was the main material of hunting weapons and farm tools. The tiger, considered the king of mammals by the Chinese and linked to the qualities wildness, bravery and danger, represents this season of hunting. Another explanation for this connection is found in the unpredictability and unreliability of autumn winds, chracteristics which are found in the tiger. From the geographical point of view, Chinese culture and civilisation is considered to have originated in the basin of the upper course of the Yellow river. To the west of this area lie the highlands of Tibet and the year-round snow on the mountains led to the connection between the colour white and west. The trigram for west tui, symbolised joy, happiness and satisfaction, as autumn was the time of harvest, the reaping of the year's labours and a time of rejoicing.
4. North was connected with winter as the cold winter wind came from Siberia. Winter was the apex of yin and the long nights of winter were represented by the colour black, while its animal was the turtle, king of the invertebrates and crustaceans. The trigram for north was k'an, which expresses distress, darkness and death.
5. The fifth main coordinate in the cosmic framework is the centre, which represents man's place in the world. Yellow was the colour for this area, as (yellow) loess was commonly found in the basin

of the upper course/of the Yellow River, or the provinces Shansi and Shensi today.

6. The sub-coordinates:

North east occupies the area between life (east) and death (north). It is the changing of winter to spring and of yin to yang. The trigram for north east is k'en, denoting the point where everything which has life is stated to terminate (end of yin) and to originate (beginning of yang). South east is represented by the trigram sun, meaning penetration. The change from spring to summer is the time of growth, a time of harmonious existence. The trigram k'un is positioned in the southwest; it is represents the change from summer to autumn and from yang to yin. It is the time of the ripening of agricultural produce and nearing their harvest. The trigram for northwest is ch'ien; it marks the approach of the end of the year; it is the time when sacrifices are placed to heaven as a token of gratitude for the year's harvest and to wish for better new year.

2.2.4. Cosmic framework, the concept of Ch'i and Chinese courtyard houses

In traditional China, it was believed that celestial movements were so intertwined with man's daily lives that it was difficult to understand the latter without knowing the former. The cosmic framework found its application in Chinese society and residential environment mainly because man could not be "thought of apart from Nature", being "a vital part of the universe as a whole" (1). Thus the search for the cosmic order became the main theme of residen-

---

1) Needham, Science and Civilisation, Vol. 4, Chapter 28, Section d, p 60

tial construction, leading to the phenomenon that the form of most houses, beginning from the Han Dynasty, was strongly controlled by that of the cosmic framework, i.e. the form of the courtyard house. The reliance on the cosmic framework limited the possibilities of different forms of Chinese houses.

2.2.4.1. Main considerations in the search for an ideal residential site and in the construction of an ideal house

In prehistoric China and during the formation of states, the selection of residential sites was made primarily according to divinations, such as through the interpretation of tortoise shell or milfoil oracles, observation of the sun and stars or other natural phenomena acting as omens (1). But beginning in the Han Dynasty, the role of divination was taken over by a special set of theories for the selection of residential sites. By following this theory, it was possible for the people to study nature's rhythm and find the correct arrangement for their residence without having to depend on divination. This theory, which was the practical application of the cosmic framework to residences, was known as yang chai hsüeh or the Theory of houses for the living, and was based on the concept of man being merely part of nature and not its supremely important creature (2). The Chinese took great care in their search for a harmonious residential microcosm within the universe and paid special attention to the following factors:

1. Finding an auspicious site

2. Taking into consideration previous events of fortune or misfor-

---

1) See Part 2, Chapter 1
2) See Tang Chün-I, "The Value of the Spirit of Chinese Culture", 中國文化之精神價值 p 138

tune on this particular site

3. Constructing the house in accordance with the cosmic order
4. Studying the symbolic meaning of the geographic form and location of the site (1).

Even in and after the Han Dynasty, the house retained its distinctive feature of being both a place of residence and worship. Ethical teachings controlled the behaviour of the people in their daily lives, while an institutionalised tradition handed down from the period of the forming of states governed their ritual behaviour. The main objective in the construction of Chinese houses was to build a home in which the spatial arrangement coordinated with the ethical order (cf. Part 1, Chapter 2) and the cosmic order.

The division of the house into sections for family members of different status or sex, and the worship of ancestors in the core area of the house were derived from the principles of the ethical order. Next to these, five different types of worship which were related to the cosmic order were performed at different points in the courtyard house (2). They were the worship of:

a. the god of the inner door Hu (戶), performed in the eastern portion of the house;
b. the god of the stove Tsao (灶), performed in the southern part of the house;
c. the god of the central opening Chung Liu (中雷), in the central courtyard;
d. the god of the front gate Men (門)in the western part of the

---

1) See Part 2, Chapter 3
2) The Chinese believed that certain objects in the house possessed their own soul which must be worshipped. See Juan Chang-Jui,台湾民間崇信的神靈 (The Sacred Souls Worshipped in Taiwan) in 藝術家 (Art Journal), Vol. 33, Nos. 1 & 2, Taipei, 1981, p 171

house; and lastly

e. the god of the well Ching (井), in the northern portion of the house.

The performance of these rituals at other places in the house would lead to a disturbance of the cosmic order, and was to be avoided.

Apart from the site and spatial arrangement, the Chinese also considered the structure and scale of the house to be of great importance. In the event of misfortune to any member of the family, these elements were also taken into consideration as the cause for the disturbance of the cosmic order and when possible, the error rectified (1).

In order to understand the rhythm of nature, whose harmony was necessary in order to achieve cosmic order, the Chinese developed a complete explanatory system which was based on the concept of Ch' i (氣). Any discussion on the cosmology of Chinese houses must therefore include this vital concept of Ch'i or the "breath of life".

2.2.4.2. The concept of Ch'i

The concept of Ch'i originated during the period of the formation of states. The Chinese at that time observed the growth, maturing, fading and death of all life in the universe as brought on by the different winds of the four seasons in an endless cycle. At the same time, the continuous flow of the life-giving water in rivers and streams was considered to be powered by a certain force of nature. By connecting the power behind movement of the winds and

---

1) See Part 2, Chapter 3, Section on "Ideal Measurements"

waters into a single force, the Chinese arrived at the concept of the invisible breath of life Ch'i, which was believed to be the cause of all change in the universe (1).

The idea of Ch'i related to housebuilding in this study and the Ch'i in Chinese philosophy are actually two facets of the same concept. However, the emphasis in housebuilding was on the movement of Ch'i and its influence on a particular site, while in Chinese philosophy, it was on the essence and origin of this breath of life.

A naturalist in the Chin Dynasty (265-316) (2) Yang Ch'üan (楊泉) expressed his view of Ch'i, which represented the view of the common people:

Ch'i is the primal stuff of all existence; Ch'i is produced from the evaporation of water into its gaseous state, therefore water is the origin of all things (3).

Stephen Skinner's explanation combines the two aspects of Ch'i we have mentioned as the flow of energy and shows the importance of the winds and waters to the Chinese: "Wind and water...Together they express the power of the flowing elements of the natural environment, and this power is expressed in, and derived from the flow of energy not only on the surface, which has been sculpted by wind and water, but also through the earth" (4).

---

1) See Huai Nan Tzu, Ch'un Ch'iu Fan Lu, Lun Heng for thorough discussions on this idea
2) The Chin Dynasty came after the Han Dynasty and should not be confused with the Ch'in Dynasty (221-206 B.C.), from which the name "China" derived
3) Translation mine. See Yang Chüan, Physical Theories. Although most of his works had been lost over the centuries, some of his writings were collected in the works of Sun Hsing Yen and Yen Ko Chün in the Ching Dynasty
4) Stephen Skinner, The Living Earth Manual of Feng-Shui, (London: Rutledge & Kegan Paul, 1982) p 4

I do not intend to discuss here the influence of the concept of Ch'i on the development of ancient Chinese sciences and philosophy. Rather, I am interested in the effects of this naturalistic thinking on the lives of the Chinese, and how the concept of Ch'i combined with the cosmic framework, influenced the search of an ideal site and the construction of an ideal house.

The basic principles of the concept of Ch'i can be summarised as follows:

1. The Chinese considered the universe as being a container pervaded by Ch'i. In this connection, Huai Nan Tzu says:

> "The Great Beginning produced an empty extensiveness and this empty extensiveness produced the cosmos. The cosmos produced the primal fluid (Ch'i) which had its limits" (1).

If the universe can be regarded as a cube-shaped container, the "sides" of this container are also the boundary limiting Ch'i's movement (2).

2. The universe was conceived as a field of Ch'i, dynamically distributed in different concentrations.

It was widely held that the entire universe consisted only of Ch'i, which however, underwent alternating phases of dispersion and condensation. In its stage of dispersion, it is invisible and intangible. At that time, therefore, there was only Ch'i as such, and no organised world of discrete objects. But with the condensation of Ch'i, such a world comes into being, only to suffer dissolution, at which time Ch'i again disperses and reverts to its former state.

Therefore in Chinese minds, there was an intimate connection

---

1) Huai Nan Tzu, in Fung Yu-Lan, A History of Chinese Philosophy, Vol. 1, Chapter XV, p 396
2) Translation mine. See Kuan Tzu, attributed to Kuan Chung (died 645 B.C.), Chapter Hsing Shu

between the condensation of Ch'i and the existence of all beings. Ch'i was the essential element which gave life to all beings through its condensation, while its dispersion resulted in death (1).

3. Ch'i was not only the source of all life in the universe, it was also responsible for the existence of all forms. On the question of the formation of all things as visible shapes, Chang Chai said:

> "When the Ch'i condenses, forms become visible so that they are then in the shapes of individual things. But when it does not condense, forms are not visible and things cannot be shaped" (2).

4. Man's constant immersion in Ch'i. One of the scholars of Western Han (A.D. 24-220) Tung Chung Shu (3) explained the embodiment of the concept of Ch'i through the metaphor that man's existence in the universe is like a fish's attachment to water:

> "Within the universe there exists the Ch'i of the yin and yang. Men are constantly immersed in it just as fish are constantly immersed in water. The difference between them and water is that the turbulence of the latter is visible, whereas that of the former is invisible."

After noting the invisible and intangible essence of Ch'i, he adds:

> "For water, compared with them (Ch'i), is like mud compared with water. Thus in the universe there seems to be a nothingness and yet there is substance. Men are constantly immersed in this eddying mass, with which, whether themselves orderly or disorderly, they are carried along in a common current" (4).

---

1) See Fung Yu-Lan, A History of Chinese Philosophy, Vol. 2, Chapter 12, p 484
2) Translation mine. See Chang Tsai (A.D.1020-77), 正蒙 (Discipline for Beginners), Chapter 2, p 6
3) A famous Neo-Confucian scholar who represented the spirit and ideology of the Former Han Dynasty. He was a prolific writer, but much of what he wrote has been lost. His major surviving work is Ch'un Ch'iu Fan Lu or Dew of the Spring and Autumn Annals.
4) Tung Chung-Shu, Dew of the Spring and Autumn Annals, Vol 17, Section titled "Tien Ti Yin Yang" (Yin Yang of Heaven and Earth) in Fung Yu-Lan, A History of Chinese Philosophy, Vol. 2, p 20

5. Categorisation of Ch'i into Yin and Yang Ch'i, heavenly and earthly Ch'i. Ch'i is also correlated with the dualism of Yin and Yang. The Chinese contribute the origin of Ch'i's condensation and dispersion to their approach to nature, in which Yin and Yang are the two elementary forces of the universe, eternally interacting, yet at the same time eternally opposed to each other. With them many characteristics and things are correlated; just as all beings result from the male and female, all universal phenomena result from the interaction of these two cosmic forces.

De Groot notes:

> "By the cooperation of these two principles life is created; in other words: Yang and Yin alternately bearing sway in Nature and blending their influences together, are the causes of constant growth and decay, of life and death, of the annual rotation of production and destruction" (1).

Yang Ch'i is also known as heavenly Ch'i and Yin Ch'i as earthly Ch'i. While Yin Ch'i and Yang Ch'i are difficult to picture, heavenly Ch'i and earthly Ch'i are presented in a more understandable form as 'Celestial breath' and 'Terrestrial Breath' in De Groot's Religious System of China. We read:

> "The so called Tien Ch'i or 'Celestial Breath', the energy of the Yang or highest power of the universe, specially identified with heaven, as it embraces light and warmth. It shares the supreme sway in nature with the 'Terrestrial Breath' Ti Ch'i, or the energy of the principle Yin, which represents darkness and cold and is identified with earth" (2).

Moreover, "when heavenly (Yang) Ch'i descends, and earthly (Yin) Ch'i ascends, Yin and Yang unite, and ten thousand things are

---

1) See De Groot, The Religious System of China, 1897, Vol. 3, Book 1, p 948
2) Italics changed spelling. Ibid, p 948

engendered. If heavenly Ch'i does not descend and earthly Ch'i does not ascend, Yin and Yang cannot be blended and the ten thousand things do not develop" (1).

Heavenly Ch'i was led by movement, never resting; earthly Ch'i was led by purity and clarity, constantly protecting and maintaining. It was believed that earthly Ch'i existed in (the dragon veins of) the earth. It ran through the earth and along its watercourses and was subject to decay; heavenly Ch'i was affected by the state of heaven and could overrule the effect of earthly Ch'i.

2.2.4.3. The residence as a microcosm based on the cosmic framework, pervaded by Ch'i

The Chinese did not merely build a home, but built houses to express an abstract notion - a proper place between heaven and earth in which people dwelled. A prevailing concept which existed in the traditional period was that man, living under the domination of nature, best ensured his security and felicity by conforming and adapting himself to the influences of the universe.

The Chinese believed that the quality of a residence was decided by the interaction of Yin and Yang Ch'i. Every site itself provided the Yin (earthly) Ch'i, while the amount of Yang (heavenly) Ch'i which entered the residence was dependent on the shape and orientation of the site. When heavenly Ch'i blended with earthly Ch'i, the result strongly influenced the lives of the inhabitants. Therefore, the house should be placed at a location which would receive the

---

1) Translation mine. See Wen-tzu 文子 , attributed to a follower of Lao Tzu. Chapter Shang Te. Collected in 四部備要 Ssu-pu Pei-Yao, (Shanghai : Chunghua Book Co.)

right amount of both heavenly and earthly Ch'i; too much of one or the other was maleficent (1).

It follows from this that the building of houses in accordance with the theoretical tenets of Yang Chai theory was seen as an absolute necessity across the whole land, as indispensible because it was impossible to withdraw oneself from the powers of nature.

To traditional Chinese minds, graves and the spirits of the ancestors dwelling therein were mighty instruments of blessing or punishment, with whose protection happiness was intimately bound. Spirits of ancestors resided not only in graves but also in the tablets exposed for worship in the house and in temples of a village. For the same reasons as those for the living, they should also be allowed to live under the favourable influences of nature.

The principles of Yang Chai theory are based on the Chinese outlook on life in which the main aims are to find a proper residential space and to seek happiness, wealth and longevity. By relying on the cosmic framework and the concept of Ch'i, the Chinese believed they could dwell in the most suitable and favourable residential environment for the whole family.

---

1) It was believed that the good or bad influence of heavenly Ch'i blended with earthly Ch'i can only be observed from the shape of objects on the ground (i.e. mountains, rivers and the shape of the site and house). 氣行於地 .... 因形察氣 (The movement of Ch'i on earth can be observed from the shape of objects), see 地理辨正直解 (The Explanation of Ti Li), Vol. 1, p 2; 看其形之動靜即可卜其氣之興盛 (From the shape of objects we may learn whether Ch'i is enabling the site to flourish), see Hsing Yen Chih Yao 心眼指要 (Essential Points of Feng Shui), (Shanghai: Hsiao Ching San Fang Publ.), Vol. 2, p 4

Summary and Conclusion

The cosmic framework which influenced much of Chinese residential architecture was formed in the Han Dynasty. The theories of Yin and Yang and the Five Elements, which became the core of Han thinking, originated in the desire of the Chinese to categorise all forms in the universe and find their common elements. The balance between Yin and Yang was necessary to ensure happiness, health and an orderly world.

The interaction of Yin and Yang caused the differentiation of matter into the Five Elements - wood, fire, earth, matal and water. These in turn interacted to produce all things in the universe, leading to the phenomena that all beings and objects were related to at least one of the elements. The Five Elements were considered five powerful forces in an everflowing cyclical motion, and not passive, motionless fundamental substances.

Within the theory of the Five Elements, two types of orders existed which were concerned with the prophecy and divination of all human affairs; they were the Mutual Production Order and the Mutual Conquest Order. The two Orders were used as an explanation for the course of natural law and laid the basis for the prediction of fortune and misfortune in human affairs.

The theory of the cosmology of houses which became stabilised in the Han Dynasty contained several main tenets. Firstly, the geometric shape of the square became of vital importance in traditional Chinese environmental design, as it represented earth or man's world, as opposed to a round heaven. Secondly, The square was not only related to the "Ming Tang", the royal hall of Light, but also

to the classical plan of a Chinese city, town and the courtyard house. Thirdly, the people of the Han dynasty regarded Heaven and Earth as a large cosmos, and man's living environment, including the state, city, dwelling, and even the human body as a microcosm, a reflection of the cosmos. Fourthly, the construction of a dwelling which harmonised with the universe and man himself was of utmost importance in the building of Chinese houses.

The "cosmic framework" was the idealised structure of the universe in the Chinese minds. It was believed that the cosmic order was formed through the harmony among all things in the universe, and that their relationship could be expounded by the interaction among the elements of the cosmic framework.

Before we examine in detail in Chapter 3 how the concept of Ch'i and the cosmic framework were related to Chinese residences, and considerably influenced the selection of a proper residential site and the construction of an ideal house, it is necessary to present the main ideas used in Yang Chai theory:

1. It was believed that by residing in an environment which was constructed through the principles of the cosmic framework, the Chinese fulfilled their wish of "cosmicising" their residence, and their wishes such as stability, fortune, wealth, longevity, as well as high official position for civil servants and rich harvest for the farmers could be assured.

   The widespread use of the cosmic framework as a blueprint in the planning and building of houses led to the phenomenon that it was the sole prototype of Chinese houses during the traditional period.

2. The concept of Ch'i explained the rhythm of nature, whose harmo

ny was a prerequisite for achieving cosmic order. Ch'i was believed to be the primal stuff of all existence and the cause of all change in the universe. Yang Ch'i was also known as heavenly Ch'i and Yin Ch'i as earthly Ch'i. The shape of a residential site was important to the interaction of Ch'i; only when the the blend of heavenly Ch'i with earthly Ch'i enabled a site to flourish was the source of happiness given.

3. The avoidance of evil and search for happiness also depended on the use of auspicious measurements and decorative elements. These will be explained in detail in the next chapter.

Yang Chai Theory represents only part of the study of Feng Shui, whose other half comprises the Theory of Houses for the Dead (graves) or Yin Chai Theory. However, most research on Feng Shui has centred on the study of graves, paying little attention to Feng Shui's influence on traditional Chinese houses. One reason for this phenomena may lay in the difficulty in comprehending the only available books and records on Yang Chai Theory which are in classical Chinese (1), while another may be the complexity of the numerous elements of the cosmic framework which appear in Yang Chai Theory.

Yang Chai Theory emphasises the form and spatial arrangement of the house, as well as the geographical land form of the site and the influence of these on the inhabitants, while Yin Chai Theory is mainly concerned with the site of the grave and its influence on the descendants of the deceased. There are, however, various similar principles shared by these two theories, eg. the search for

---

1) such as 陽宅十書 (The Ten Books of Yang Chai; Chao Chiu Feng, 陽宅三要 (Three Aspects of Yang Chai); 地理辨正直解 (The explanation of Ti Li); 地理直指原真大全 (The Complete Instructions on Ti Li); 陽宅愛衆 (Yang Chai and People)

a proper site. The main reason for the similarities between these two theories lies in the Chinese thinking that both houses and graves are residences. This thinking had been deeply engraved in Chinese minds ever since recorded history; they believed that the world of gods, spirits (the deceased) and man were strongly interrelated, each possessing the power to influence the affairs of the other two worlds.

We can see from the history of traditional Chinese houses that the symbol systems from prehistoric China had become included in the cosmicisation of houses in the Han Dynasty, however imperfect the principles may have been at the time. It was only during the period from the Han to the Tang Dynasty that this thinking became systemised after numerous modifications and was supported by a set of knowledge (such as Ch'i).

With the contents of this chapter as the theoretical basis, we can now turn to the ideal location, spatial organisation and interior arrangements and decoration of the Yang chai.

In their search for a proper site, the importance was in the landform of the site and its relationship with both the natural and artificial environment. The main considerations in planning and building of a house lay in the location of the main entrance and the orientation of the house, in order to lead heavenly Ch'i into the house; the correct scale of all elements of the house based on auspicious measurements, the correct positioning of architectural elements (eg. spirit wall) in the house; and the placing of decorations within the house to ward off evil and bring luck to the inhabitants. All these points shall be discussed in detail in the last chapter of this thesis.

Chapter 3 Yang Chai Theory

The cosmology of the house in the Han Dynasty was incorporated into Yang Chai Theory. Yang Chai Theory extensively employed the cosmic framework and the concept of Ch'i to form the practical principles of housebuilding, offering Feng Shui finders, craftsmen and inhabitants clear instructions in finding an auspicious site and constructing the ideal house.

The acceptance of the School of Rules Concerning Forms (See Part 2, Chapter 2) by the Imperial Family in the Han Dynasty led to royal recognition of the Yang Chai Theory. However, the propagation of this theory to the populace was achieved by Yang Yün-Sung, an officer in the imperial court who stole royal documents on the subject and passed them to the common people, leading to the widespread acceptance of Yang Chai Theory by much of the population already after Tang (1).

The Books of the Early Han Dynasty mentions two works on Yang Chai which existed during the Han Dynasty: 堪輿金匱十四篇 (The Golden K'an Yü Thesauraus in Fourteen Chapters) (2) and 宮宅地形十二篇 (On the Configurations of Grounds for Mansions and Houses, in twenty Chapters), both of which have been lost (3). According to De Groot, 黃帝宅經 (The Canon of Dwellings ascribed to the Yellow Emperor (黃帝) is considered to be the oldest exponent of Yang Chai extant (4), although its origin has been held in doubt (5). A work under the same title which was

---

1) See Nan Hai Chu Jen, 堪輿學原理 (The theory of K'an Yü), (Taipei : Chi-Wen, 1981), p 3
2) Both K'an Yü and the previously mentioned Ti Li were terms used to denote Feng Shui
3) De Groot, Religious Systems, Vol. 3, Book 1, Part 3, p 995
4) ibid, p 996
5) ibid, p 996, and Han Pao-Teh, "A Study of Feng Shui" in Bulletin of Environmental Studies, p 130

included in the 古今圖書集成 (Imperial Encyclopedia), ascribed to Wang Wei of the fifth century (1), is still in use today.

The Imperial Encyclopedia also contains other works which mention the principles of constructing Yang Chai, such as 黃妙應博山篇 (Treatise on Mountains by Huang Miao Yin), 水龍經 (Writings on the Water Dragon) and 陽宅十書 (Ten Books of Yang Chai). These books had been in continuous use by Feng Shui finders and craftsmen in the traditional period; however, only the Ten Books of Yang Chai was of crucial importance to commoners in helping them locate their dwellings, as, in contrast to the others, it was written with simple explanations and diagrams. Other undated works on Yang Chai written in classical Chinese include 陽宅三要 (Three Aspects of Yang Chai), 地理辨正直解 (The Explanation of Ti Li), 地理直指原真大全 (The Complete Instructions on Ti Li) and 陽宅愛衆 (Yang Chai and People) (2). The above mentioned books form part of the literary basis for the following discussion on Yang Chai.

2.3.1. Two Schools of Yang Chai Theory

Various schools of Yang Chai Theory developed after the Han Dynasty which emphasised different methods in the construction of the ideal living space. They were all based on the cosmic framework and Ch'i, and only two schools can be characterised as being distinct, while the others merely represented varying combinations of these.

---

1) See Needham, Science and Civilisation, Chapter 14, Section a.6,
2) These books were reprinted at the beginning of this century - Chao Chiu Feng,陽宅三要 (Three Aspects of Yang Chai), (Shanghai: Shu Yeh Tang, 1911); Chiang Ping Chieh, 地理辨正直解 (The Explanation of Ti Li) (Shanghai: Chiao Ching Shan Fang); 地理直指原真大全 (The Complete Instructions on Ti Li) (Shanghai: Hung Wen); 陽宅愛衆 (Yang Chai and People), (Shanghai: Chiang Tung, 1911)

The School of Forms (1) focussed on the shape of "containers of Ch'i" (site and house) and traced out favourable building locations, taking into consideration the contours and configurations of high grounds and mountains and the windings of watercourses. As the Chinese considered all forms to be the result of the condensation of Ch'i, they believed they could disclose the movement of Ch'i by studying the shapes of mountains and rivers. Accordingly, they were able to discern the auspiciousness of a site by the amount of lively Ch'i present. Pu Che-Wei noted:

> "On the ground, Ch'i takes the form of thousands of mountains and watercourses; the origin of mountain ranges and rivers is the flow of Ch'i, sometimes apparent and sometimes concealed. Lively Ch'i from mountains and rivers leads to growth of prosperity" (2).

The other was the School of Orientation (3), which expounded the influence the heavens exercised upon earthly affairs. This school more particularly laid stress upon the searching and gathering of lively Ch'i by using the directions, emblems, and the nine halls, placing little importance on the configurations of the earth.

The former was mainly concerned with site finding, seeking out favourable spots to build a house, while the latter concentrated on the orientation of the house and the location of the front door so that the house can receive Ch'i which can enable the house to prosper, by referring to a complex set of relationships between directions as indicated on an elaborate multi-ringed Feng Shui compass and using the cosmic framework. See Figure 2-3-1.

---

1) (形 法), not to be confused with the School of Rules Concerning Forms. See Nan Hai Chu Jen, (The theory of K'an Yü), p 20
2) See Pu Che-Wei, 雪心賦 (Poetry of Snow Heart), Vol. 1, p 1, published in the Ching Dynasty
3) (向 法), See Nan Hai Chu Jen, (The theory of K'an Yü), p 20

The application of Yang Chai Theory in China was focussed in Northern and Southern China, where the population was mainly Han people. The other regions, being populated by non-Han minorities, adhered to their own cultural traditions not related to the cosmic framework. In Northern and Southern China, the employment of the two different theories depended on the geographic location of the houses. The School of Forms dominated in regions of mountains and watercourses, while the School of Orientation prevailed in areas where the geographical forms were less distinguished, such as in flatlands and towns. Together these two schools encompassed the main principles regarding site finding and housebuilding based on the cosmic framework and Ch'i, and although there still existed a demarcation between the two schools at the end of the traditional period, they were so far fused together that the Chinese normally applied principles of both schools to their house construction (1). Because of this development, the two schools will be incorporated in our discussion of Yang Chai Theory.

2.3.2. The elements which form an ideal building site

The most important matter with which any book on Yang Chai Theory begins is the search for a proper building site. In the section "Kung Shih" of the ancient dictionary Shih Ming, the meaning of the character chai (宅), literally the house, is explained as: "Finding an auspicious site on which to construct the house." (宅, 擇也, 擇吉處而營之也). In the opening passage of Chapter One of Ten Books of Yang Chai, the importance of choosing a proper resid-

---

1) See Han Pao-Teh, "A Study of Feng Shui as a Chinese Concept of the Environment" in Bulletin of Environmental Studies Vol. 2, No. 1 (June 1983), pp 123-150

ential site for the living is strongly emphasised: "The most important part of a dwelling site is the surrounding mountains and rivers through which Ch'i flows, as they exert great influence on the locality, which in turn is crucial in influencing people's fate. If the surrounding formation is malefic, even a perfect inner shape of the house will not enable its inhabitants to reach the stage of "total luck"; so that the outer surrounding of the house is of vital importance, and should be taken into consideration first" (1).

Two methods exist within Yang Chai Theory which deal with the search for an ideal site - a location with the right blend of heavenly and earthly Ch'i to produce lively Ch'i, which allows the site to flourish. The first presents both auspicious and inauspicious sites in the form of diagrams which show the surrounding landscape, accompanied by recommendations or warnings. This method was more suited to the needs of the common people, as it is more easily understood and does not deal with the underlying theories. The second method concentrates on the discussion of the theories which includes the meaning of mountain forms and mounds as well as the shape of watercourses, both of which are related to the concentration or dispersion of Ch'i.

The section which explains the first method of site choosing in 陽宅十書 (Ten Books of Yang Chai) contains 132 diagrams, which can be classified into two categories - one showing the shape of sites as being auspicious or inauspicious and its relationship with the natural landscape, and the other indicating the influence of different natural elements, such as trees, paths, flowing water,

---

1) italics mine. See Ten Books of Yang Chai, p 2

ponds and mounds in front of the main gate. A selection of representative diagrams is given in Appendix 3-2; the explanations accompanying each diagram not only advise on where to build the house, but also depict the result caused by the choice of the site.

Certain conditions accompanying the diagrams should be emphasised as those elements which characterise an ideal site for the house of common people. They can be summarised as follows:

1. According to the diagrams, the most valuable site is shaped with a stream at on the left hand side (as the blue dragon), a long path on the right hand side (as the white tiger), a pond in the front (as the red bird) and finally a mound at the back (as the black turtle).
2. If a site has flowing water along its front or back or is flanked by paths on the right and left side, both these situations symbolise luck and are considered ideal sites.
3. The site itself should be wide and flat so that it can lead in enough heavenly Ch'i

The Chinese believed that a house should not be built in bare surroundings; an auspicious house should be embraced by the elements of the natural landscape. The above three points concerning the ideal site can merely give a general idea of which elements should surround a house, such as a stream, path or row of mounds flanking the left and right sides of a house, as the Chinese believed that these were the conveyors of lively Ch'i. Corresponding to the elements of the cosmic framework, these elements were regarded as the blue dragon and white tiger, necessary guardians of the dwelling. The pond in front of the house or the red bird allowed the warm southern winds to bring moist air to the house,

while the mound in the back, representing the black turtle, blocked the cold winds from the north (1).

The recommendations and warnings for the diagrams can only show the auspiciousness or inauspiciousness of a certain site; they are not accompanied by explanations for the judgements. In order to understand the underlying reasoning, it is necessary to study the second method of site finding in Yang Chai Theory - the theoretical basis which includes the meaning of winds, waters and mountains.

2.3.2.1. The importance of winds in Yang Chai Theory

Chinese people were strongly dependent on the winds. They believed that the winds ruled the climate and were the cause of all things good or evil that Nature showered down onto the earth (2).

As the winds commanded Nature's influence upon earth, the Chinese considered them to be a principle element in Yang Chai Theory, and felt that the greatest reverence for the winds would ensure every man protection against Nature's baneful influence. A popular belief said:

> "When the winds blow harmoniously and the rains come down regularly, the realm shall flourish and the people live in peace and comfort" (3).

Hence the attempt of the Chinese to control the influence of the winds and waters were aimed at regulating the fortunes and happiness of mankind. The ancient Chinese believed there to be Eight Celestial Winds which came from the different directions in

---

1) See Ten Books of Yang Chai, p 252. For an explanation of the meaning of these four animals, see Section 2.3.2.3. on mountains and hills
2) See Hsiang Chiao, 風水辨 (Discussion of Feng Shui) in 古今圖書集成藝術典 (Imperial Encyclopedia), Vol. 680, Section 476, p 63
3) 風調雨順國泰民安 Translation mine.

different seasons of the year. As Liu An said:

> "The Directing Wind comes forty-five days after the winter solstice (that is to say, about the beginning of spring); forty-five days afterwards (at mid-spring) the Wind of Illumination of all Beings blows, and again just as many days later (in the beginning of summer) the Winds of Pure Brightness come, to replaced by the Winds of BrightSunlight after a like number of days (i.e. at midsummer). Again forty-five days afterwards (in the beginning of autumn) comes the Cool Breeze, and after another forty-five days (at mid-autumn) the Wind of the Gates that upon the Effulgent Sunlight. The Wind of Imperfection then arrives after forty-five days (in the beginning of winter), and again so many days having elapsed (at mid-winter), the Wind of Devoidness of Extensive Power begins to blow" (1).

In Shih Chi, a chapter especially devoted to the elucidation of the relationship between the Eight Winds and the directions says:

> "The Wind of Imperfection occupies the north-west, thus presiding at the killing of life. The wind of Devoidness of Extensive Power occupies the north. 'Devoidness of Extensive Power' means that (in the north) the Yang has sunk away, without the Yin having so extensive and great an influence as to stand on a par with that of the Yang. The Directing Wind occupies the north-east and consequently has the upper hand in the first production of everything endowed with life. 'Directing' means to manage all living beings in such a wise way that they are produced, and therefore this wind bears this appellation. The Wind of the Illumination of all Beings is settled in the east, and its name refers to the illumination of living nature which is entirely produced (when it blows). The Wind of Pure Brightness has its seat in the south-east, and it dominates over all living nature over which the winds blow. The Wind of Bright Sunlight abides in the south; this word 'bright' expresses the condition of the breath of the Yang at the zenith of its (annual) revolution. The Cool Breeze occupies the south-west. And the Wind of the Gates that are shut upon the Effulgent Sunlight is stationed in the west. The word 'effulgent' refers to the brightness and glory (of the sun); 'to shut the gates' means to conceal; and the name of this wind alludes to the shutting up in the earth of living nature produced by the operation of the Yang" (2).

The eight winds operated during the different seasons regulating the weather and the temperature. It was believed that the growth and decay of all life on earth was brought on by the influence of the different winds, one from another direction every season.

---

1) Hung Lieh Kiai, Chapter 3, quoted from De Groot, The Religious System of China, Vol. 3, Book 1, Part 3, pp 989-990
2) Shih Ching, Chapter 25, in De Groot, ibid, p 990-991

Furthermore, too much wind was malicious, as it did not allow good influences of the lively Ch'i to accumulate. On the other hand, little movement of air meant stagnation of a site's favourable influences (1). While these considerations have vital significance, it is at the same time easy to see that they conform to the purely practical side of siting. The ideal siting basically stresses healthiness of ground air, in which free circulation of air is necessary, while little wind has the effect of rendering the air around and inside the site stagnant.

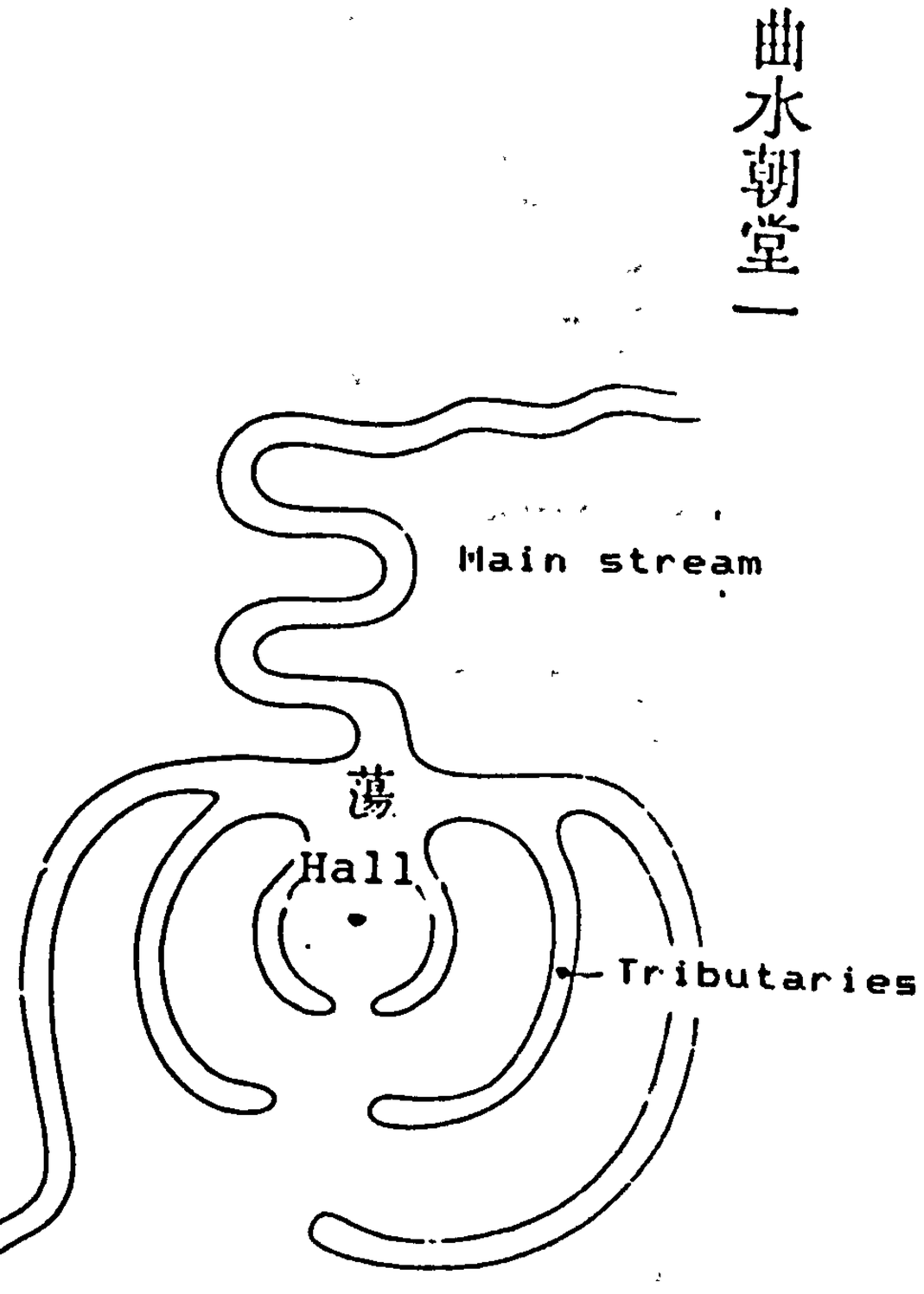
2.3.2.2. The importance of water in Yang Chai Theory

The Chinese also paid great attention to water. Water or rain, as the chief result of the favourable operation of the winds, was an element essential to vitality, especially to an agricultural people like the Chinese. It was believed that man could not enjoy prosperity and good health unless water's blessed influences could be concentrated in the places of residence. Water was regarded as a conveyor of earthly Ch'i, and watercourses around a site were categorised into the main stream and its tributaries (see Figure 2-3-4). As the tributaries were regarded as the product of the main streams, the number of tributares leading from a main stream showed its potency (as opposed to barrenness). A good site was one which was surrounded by tributaries and not directly by the main streams, as the rapid currents of the main stream would not enable gentle penetration of Ch'i into the site as would the tributaries. A flat, featureless site which contained no streams was the ultimate

---

1) See Kuo Pu, 葬書 (The Book on Burials), quoted in Han Pao-Teh, "A Study of Feng Shui as a Chinese Concept of the Environment", p 131

Figure 2-3-4 Figure of main streams and tributaries (curved watercourses worship the hall) (from The Water Dragon Classic)



of barrenness. (1)

The Water Dragon Classic mentions certain important points regarding the relationship between the watercourses and the site when there are no mountains nearby:

1. A winding stream or any body of water (such as a pond) in front of the site prevents the escape of lively Ch'i from the site. See Figure 2-3-5 a.
2. An ideal site is embraced by the curve of the watercourse, as the house is thus nestled, the escape of Ch'i is prevented on all sides. See Figure 2-3-5 b.

---

1) See Feuchtwang, An Anthropological Analysis of Chinese Geomancy, p 246

Text cut off in original

Figures 2-3-5 a,b,c, Site and Watercourses
(Sung Shao-Kuang, 1985, pp 117 & 118)

Figure 2-3-5 a

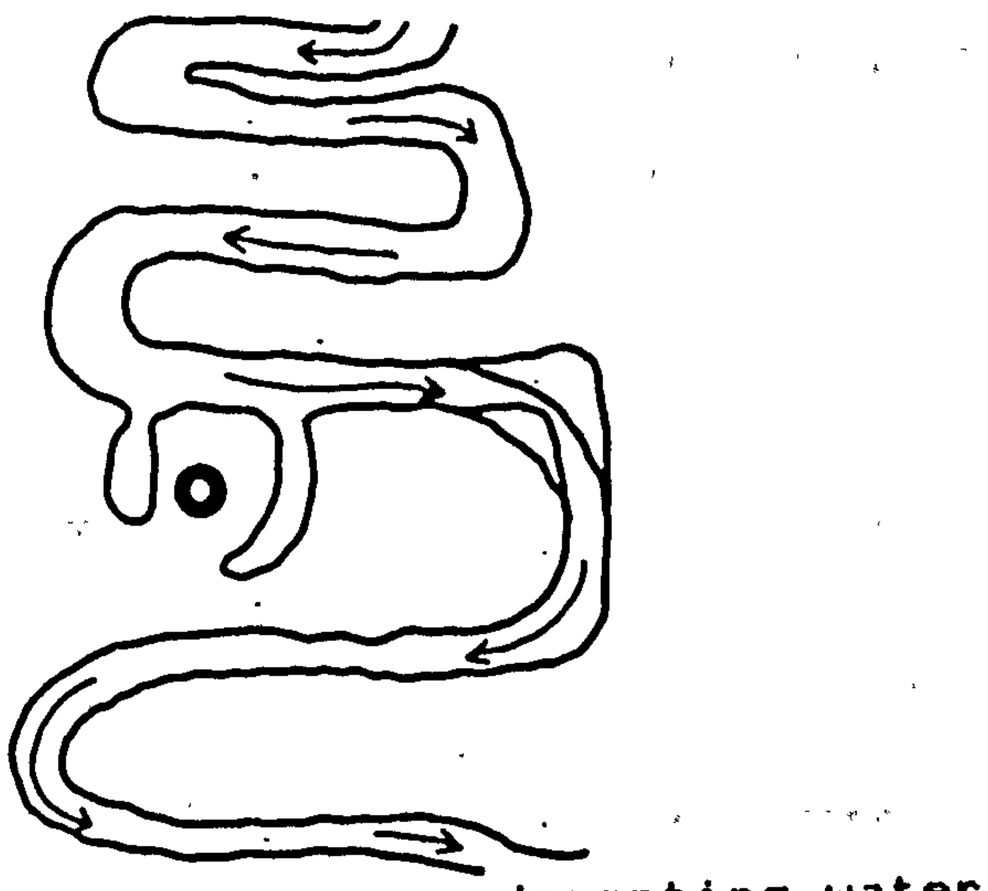


Figure 2-3-5 b.

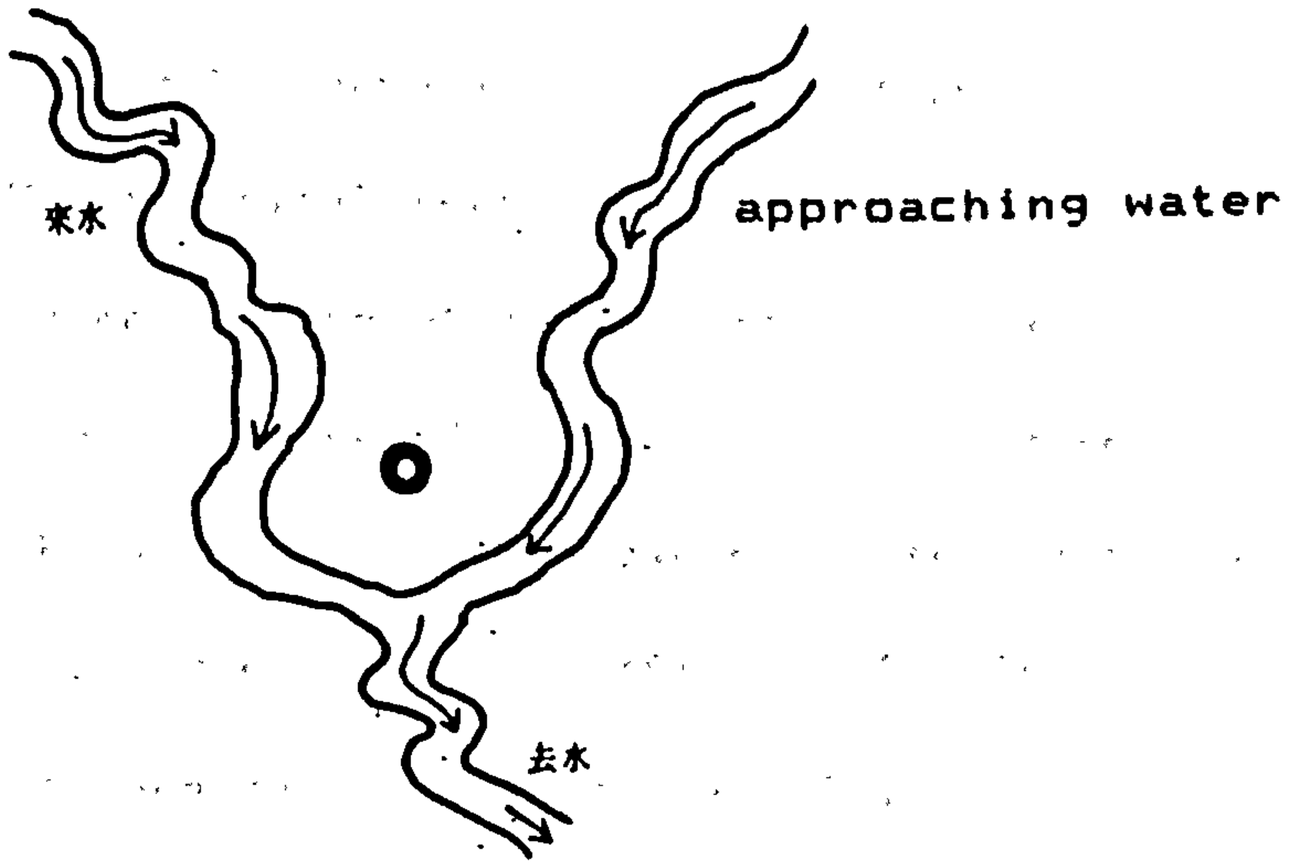
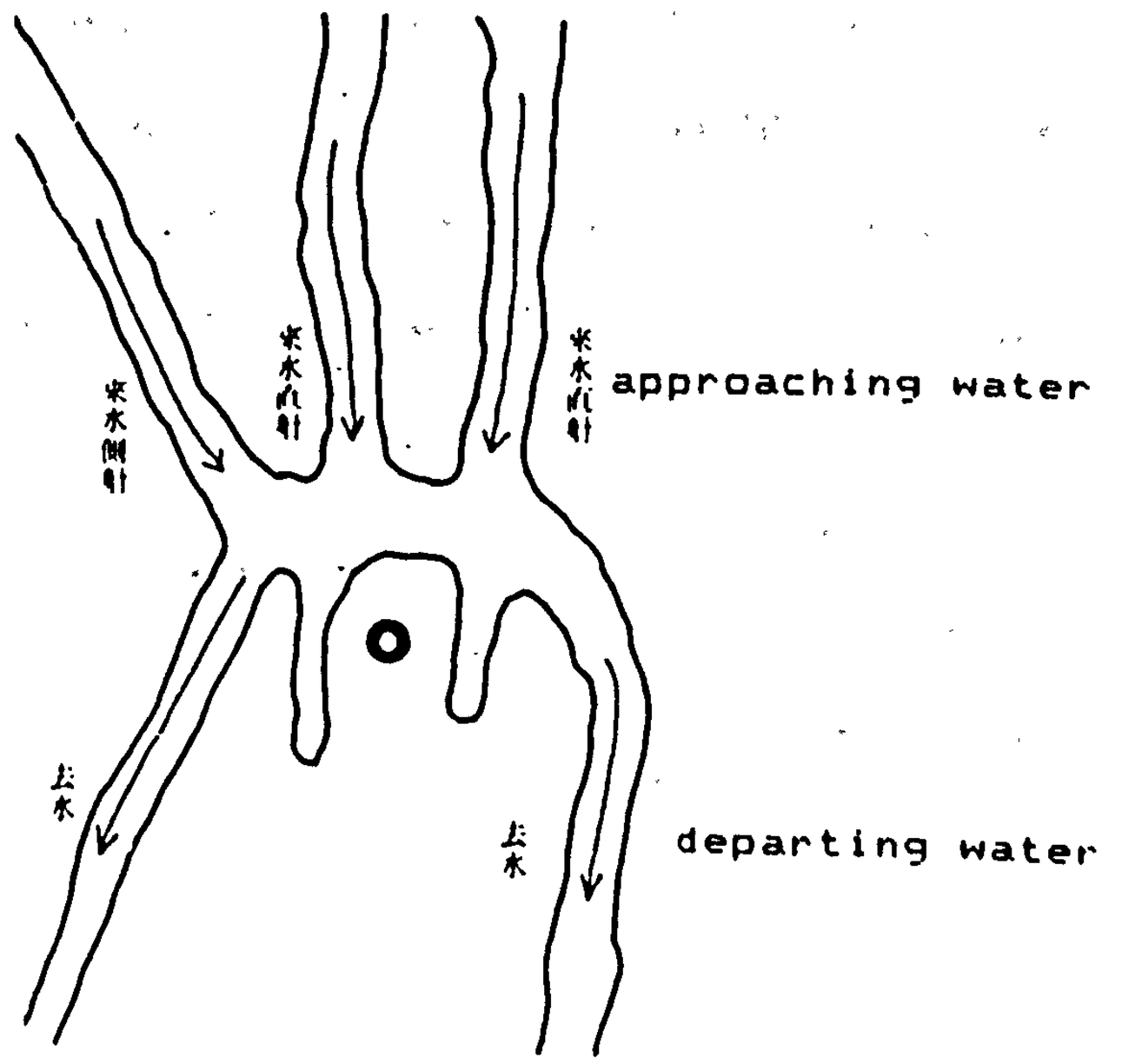


Figure 2-3-5 c.



3. Watercourses should be winding and not run straight into or away from a site, as the powerful flow of the approaching water, comparable to a spear, inflicts deadly injuries upon the inhabitants, while the straight stream leaving the site would take with it the beneficial influences of lively Ch'i. See Figure 3-3-5 c.

2.3.2.3. The importance of mountains or hills in Yang Chai Theory

Mountains or hills were also conveyors of Ch'i and symbolised the veins and arteries of nature. Being the pristine spring of Yang, mountains and chains of hills were the most masculine and powerful landscape feature. In Chinese tradition, the Dragon symbolised the Emperor and his beneficial civil government, and the Tiger martial power an intreipidity. The technical terms Lung (Dragon), and Hu (Tiger) were used to represent forms of the natural landscape such as mountains and rivers, which convey Earthly Ch'i (See Figure 2-3 6 a & b) (1). Ideally, the house site which was protected on three sides by mountains or hills was able to retain its lively Ch'i, which is the ideal blend of heavenly with earthly Ch'i.

The ideal formation of mountains or hills consisted of the Chu shan (main mountain) at the back of the site, which should be higher than the Blue Dragon chain of hills on the left side of the site (or the east side), and the White Tiger on the right (or west side). The front of the site (south) was open while the back was

---

1) Since ancient times, the celestial sphere has been divided into four quarters, as the Blue Dragon, the White Tiger, the Red Bird, and the Black Tortoise. They are celestial animals, standing for the four quarters of the heaven, these four emblems - the four gods are not only often correlated with four seasons, but also manifested in various ways on earth.

protected by the height of the Chu shan. Together the hills formed a horse-shoe shaped enclosure, an ideal container of Ch'i. All important was the presence of a Tiger and a Dragon, as these two animals have been perhaps the most constant symbols of Feng Shui system whereas the other two animals of the quarters feature only marginally.

Yang Yün-Sung illustrated the ideal site for Yang Chai, where the Ch'i of the mountains was concentrated in the site. Figures 2-3-6 c, d, e shows this particular residential site, towards the tip of a range of small hills separating two valleys with streams, the whole being enclosed by two further ranges of knolls (outer blue dragon and outer white tiger). He noted that the higher these latter ranges were, the better, and also that there were two foot-hills (inner blue dragon and inner white tiger) flanking the inner harbour, situated on the opposite shore and poised to form an enclosure (1). The low protected inner harbour (the basin) was believed to represent Yin, which provided peace, quiet, and prosperity to the site. In front of the inner harbour, there were two topographical features: Ch'ien An (前案) and Ch'ao Shan (朝山) (2). The former, a small high piece of land or hill, was nearer to the enclosed site than the latter, which represented a high mountain in the far distance. These two elements symbolised the lid of the Ch'i's container.

I have described some all-important elements in the Feng Shui system of Yang Chai in the foregoing pages: the winds, waters and configurations of the earth. It was a firm belief held by the

---

1) See Yang Yün-Sung, "Method of the Twelve Canes" (十二杖法), in Imperial Encyclopedia, Vol. 666, Section 475, p 38-40
2) Ch'ien An and Ch'ao Shan can be combined into one term Ch'ao An which means Court Altar or Table.

Figures 2-3-6 a & b Conceptual and topographical models of an ideal residential site (Chuen-Yan David Lai, The Annuals of the Association of American Geographers, Vol. 64, No. 4, 1974, p 508, Fig. 2)

Figure 2-3-6 a

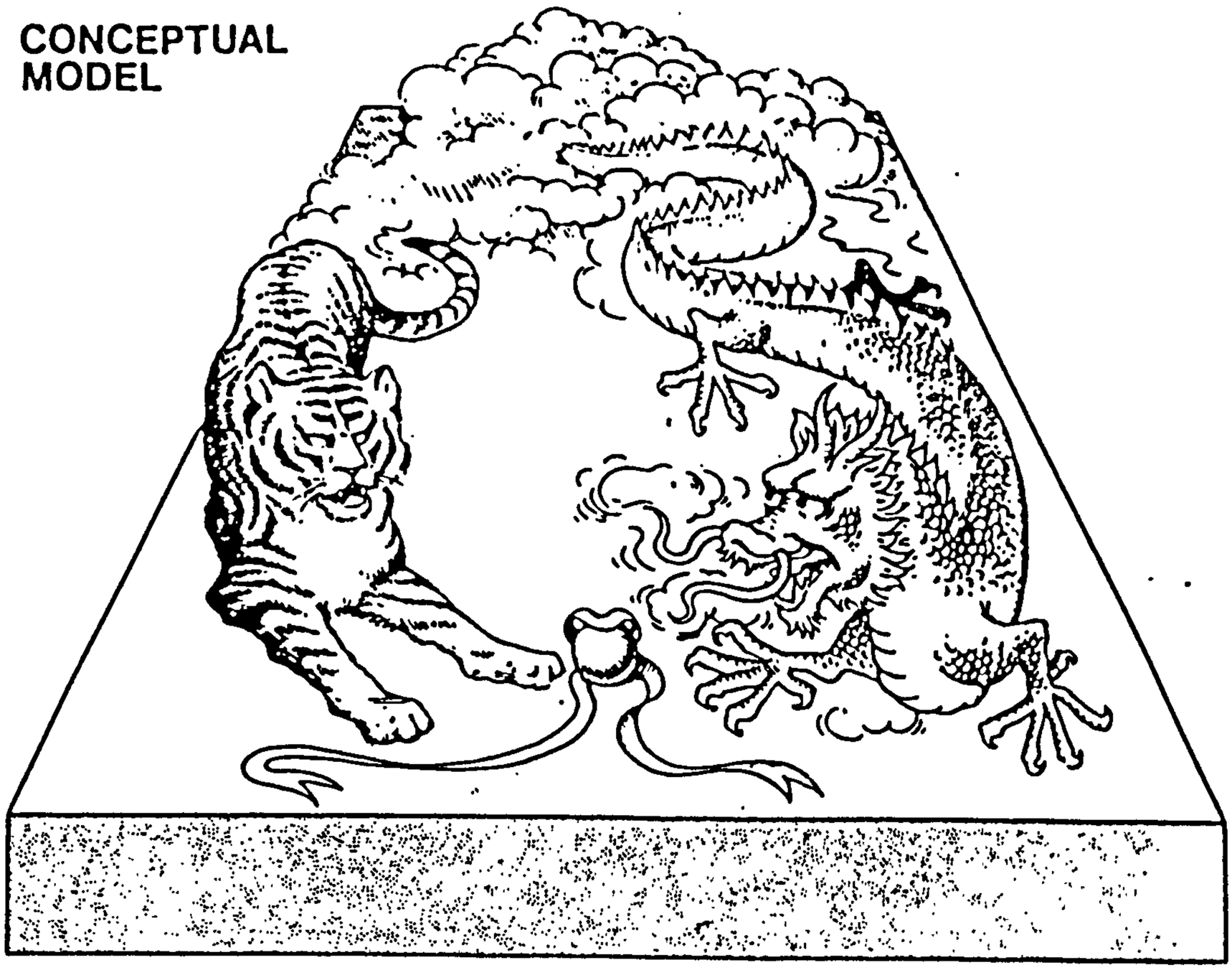
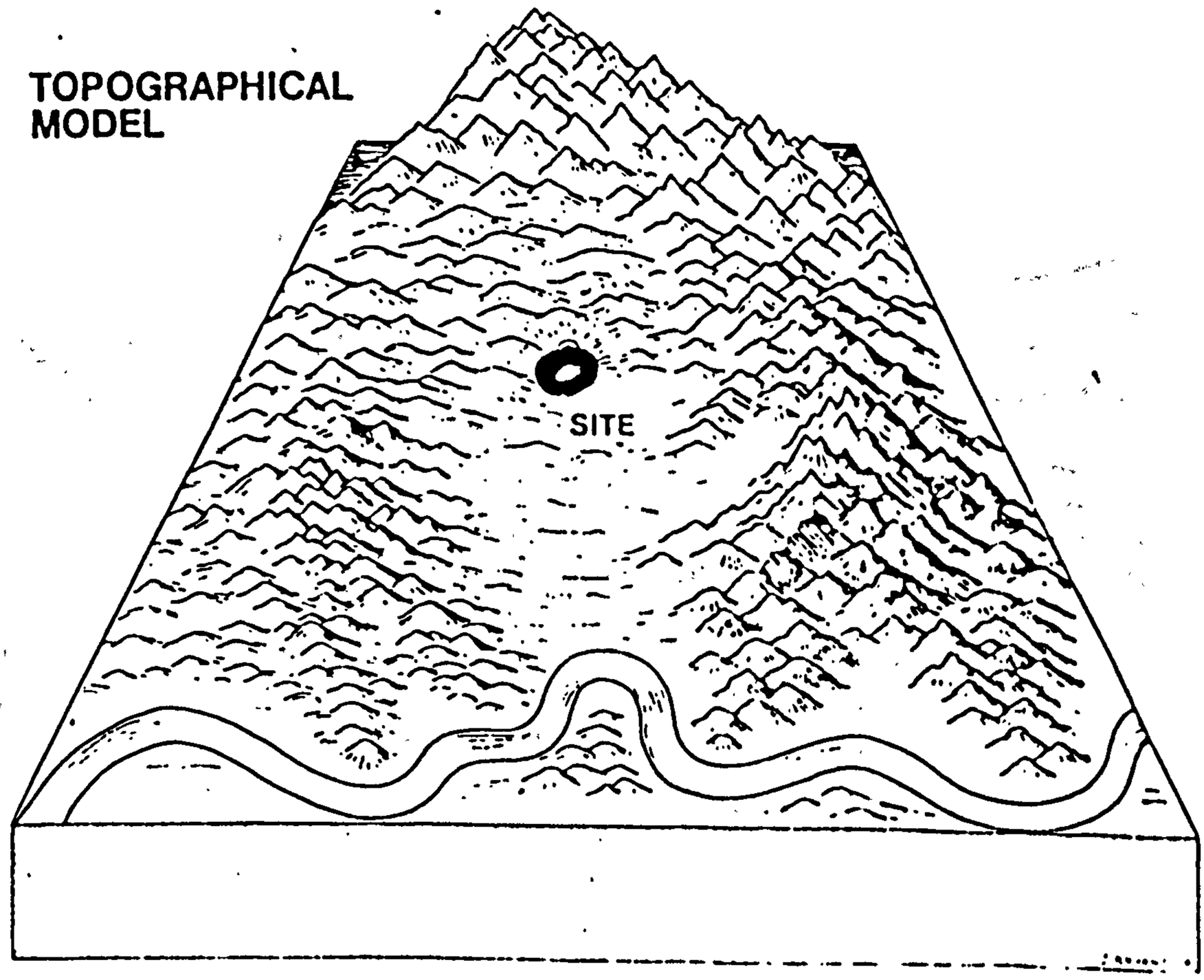


Figure 2-3-6 b



Diagrams 2-3-6 a, b, c Ideal site of Yang Chai

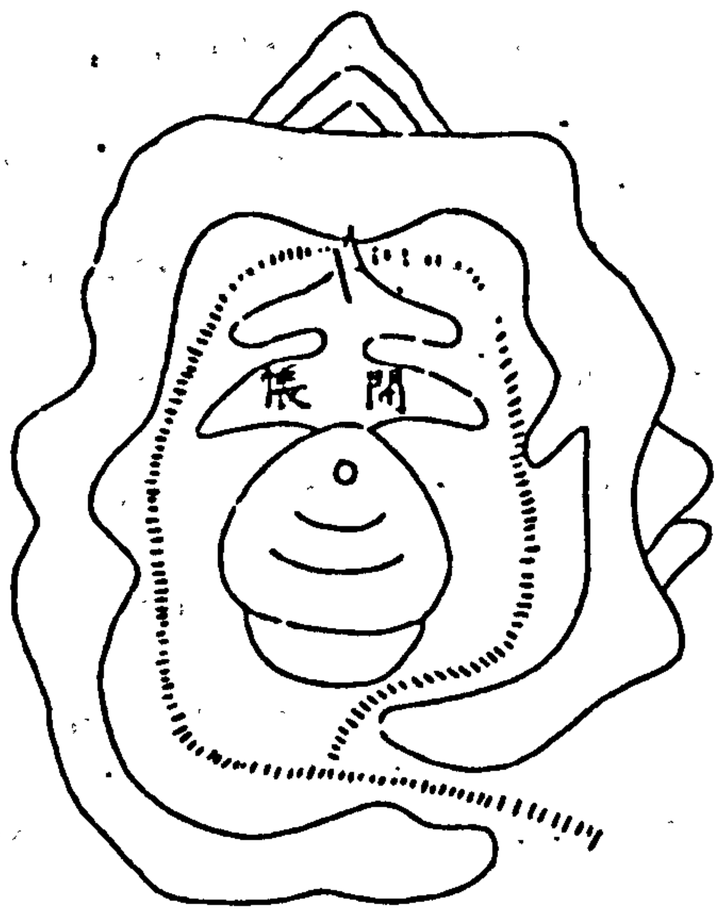
c. (Imperial Encyclopedia, Vol. 666, Section 457, p 38

d. (Chu Nan-Tzu, 1980, p 65)

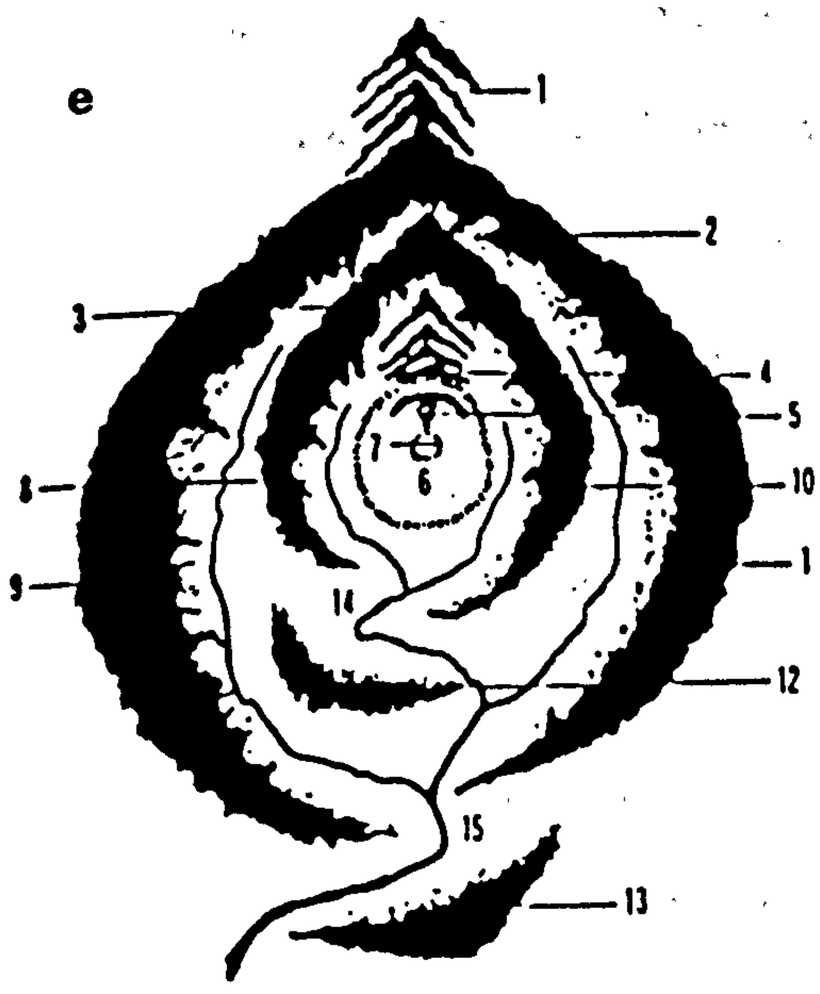
e. (Nomura Yoshihumi, 1981, p 97)

1. Ancestral mountains 2. Main mountain 3. Head of mountains 4. Brain 5. Mound of eyebrow 6. Ming tang 7. Hall 8. Inner white tiger 9. Outer white tiger 10. Inner blue dragon 11. outer blue dragon 12. An shan 13. Chao shan 14. Inner entrance of watercourse 15. Outer entrance of watercourse

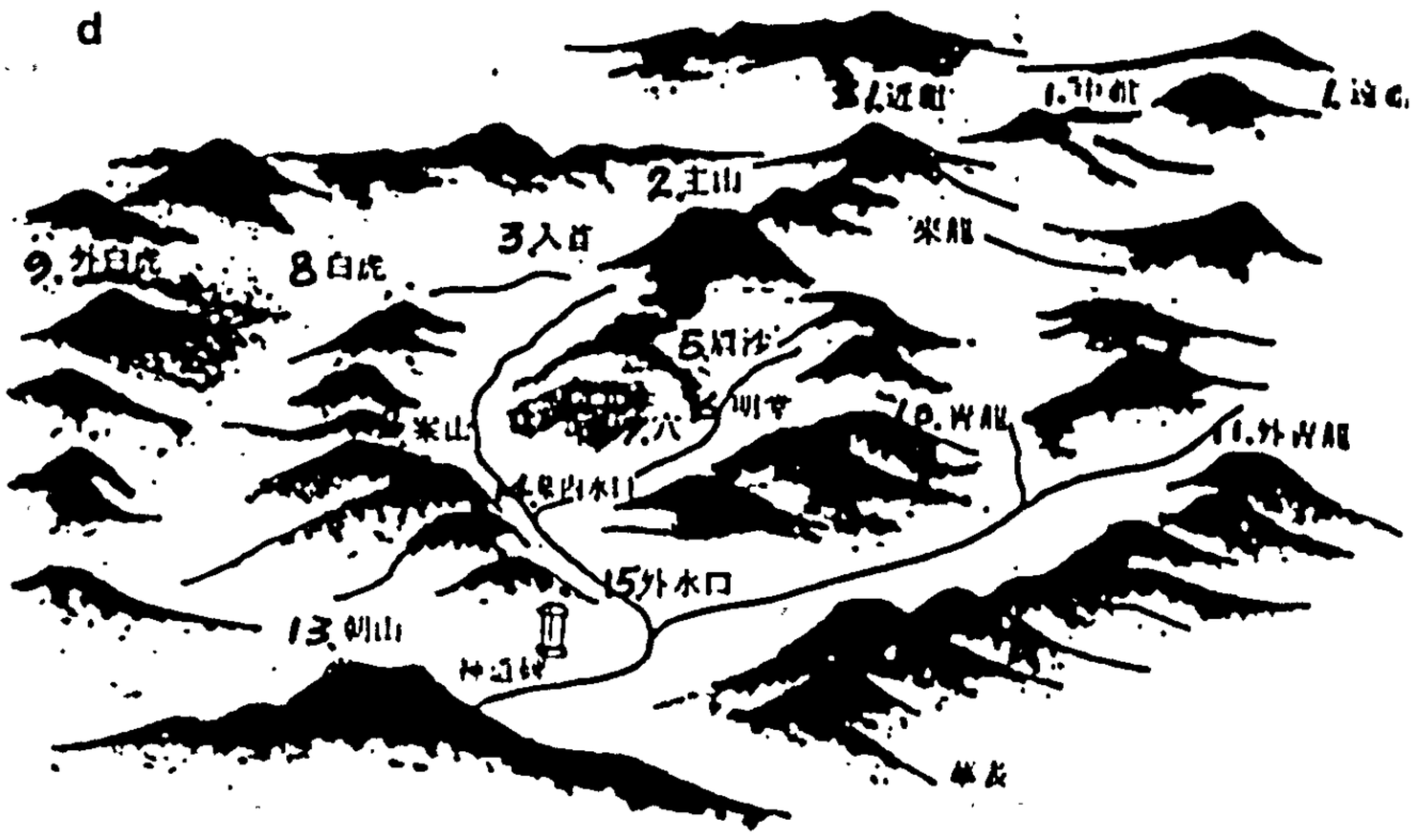
c



e



d



Chinese throughout the ages that no part of the soil could be fully impregnated with the beneficial influences of Nature unless these elements operated upon it conjointly. Therefore, these elements dominated the shape of an ideal site of Yang Chai, which was ideally to be surrounded by mountains, hills, boulders or water-courses, which in turn were identified with certain symbols in the Yang Chai theory. All these surrounding elements formed the container, while the site itself was filled with lively Ch'i.

The characteristics of the site model shaped by the Yang Chai principles can be stated as follows:

1. The layout of the housing site should be one which nestles in the embrace of hills standing to its rear and on its flanks. From the viewpoint of land forms, the ideal shape is that of a horseshoe, as two ridges of hills starting from one point run out to the right and left in a graceful curve, and end by turning inwards towards each other. An open side formed by this enclosure is the entrance of Ch'i. The eastern side is known as the blue dragon and the western side as the white tiger. Dragon and Tiger are taken to unite harmoniously, as shown in the Chinese phrase "Lung and Hu lie in a bow shaped line in mutual embrace" (龍虎二山弓抱).

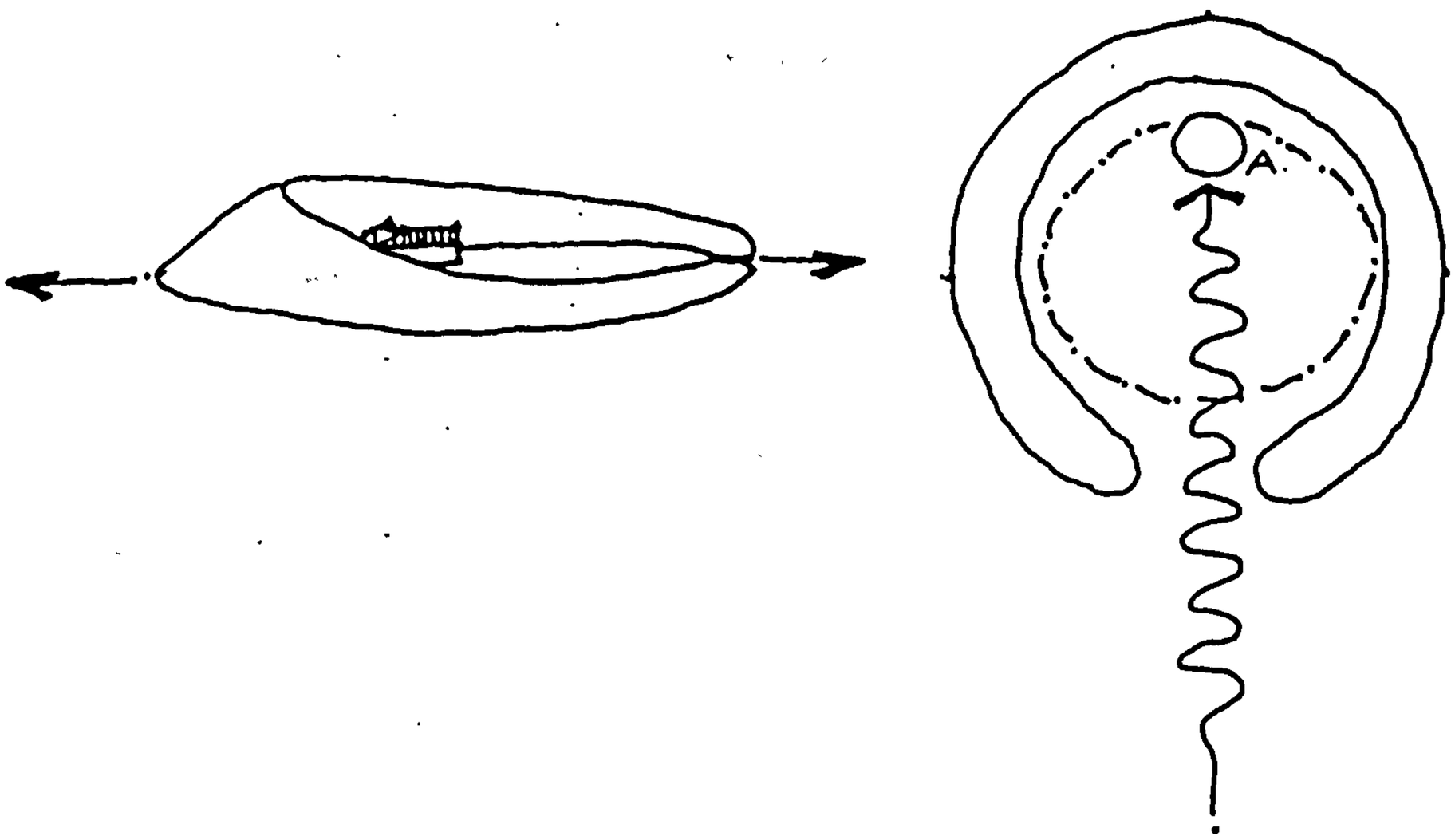
2. The site surrounded by these formations of hills should be on well-drained ground to prevent unhealthy dampness and easy flooding. This requirement can be satisfied when the inner part of the site (closed in by the mountain) is higher than the ground at the entrance of the site. The innermost point on the central north-south axis is regarded as being the best location on which to build the house (Point A in Figure 2-3-7).

3. The house should have a clear view through the entrance and not be blocked by any obstacles. It was believed that all objects jutting out of the ground in front of the house always led to misfortune in the family; only with an open view will this site be auspicious for the residents.

4. A tortuous path or winding road in front of the house is more desirable than one which is straight. Straight lines are said to produce malicious influences, as firstly the strong direct winds from the front disperse the lively Ch'i of the site and secondly evil cannot enter through curved or bent roads. Therefore no straight roads or passages should lead directly to a site of dwelling.

Based on these four points, an ideal model of Yang Chai site can be shown in Figure 2-3-7.

Figure 2-3-7 Ideal Site of Yang Chai



According to the conditions which have been discussed, we can see that only a place in the natural landscape which is "hidden from too much wind to allow the accumulation of lively Ch'i" can be regarded as the ideal residential site. Such locations can best be found in the foothills at the end of a range of mountains, as this is where the earthly Ch'i, after passing through the mountain range, accumulates. Even from the practical viewpoint of siting, a peaceful site protected from strong winds on three sides must provide a desirable residential environment. In mountainless areas, main streams and their tributaries can also enclose and convey earthly Ch'i to a site in the same manner as the mountain ranges.

This idealisation of the natural environment can be seen from the biological point of view. The mountain range or main stream can be compared to the powerful trunk of a tree, through which nourishment (Ch'i) is sent to the end of the branches to blossom into flowers. If the pistil of the flower is the ideal residential site, then the foothills or small streams enclosing it can be regarded as the petals of the flower, protecting the pistil from the harsh winds (1). In the same manner as the flower needs the sun to blossom, the site needs the addition of heavenly Ch'i to be able to flourish.

It is evident that a strict adherence to most of the principles of the Form School of Yang Chai Theory was difficult to achieve in reality, as firstly, in rural areas, the natural surroundings of a site rarely matched the requirements of the ideal site and secondly, the rise of urbanisation led to the near impossibility of locating such natural elements in town and cities. Therefore to the Chinese, Yang Chai Theory mainly provided an ideal site model

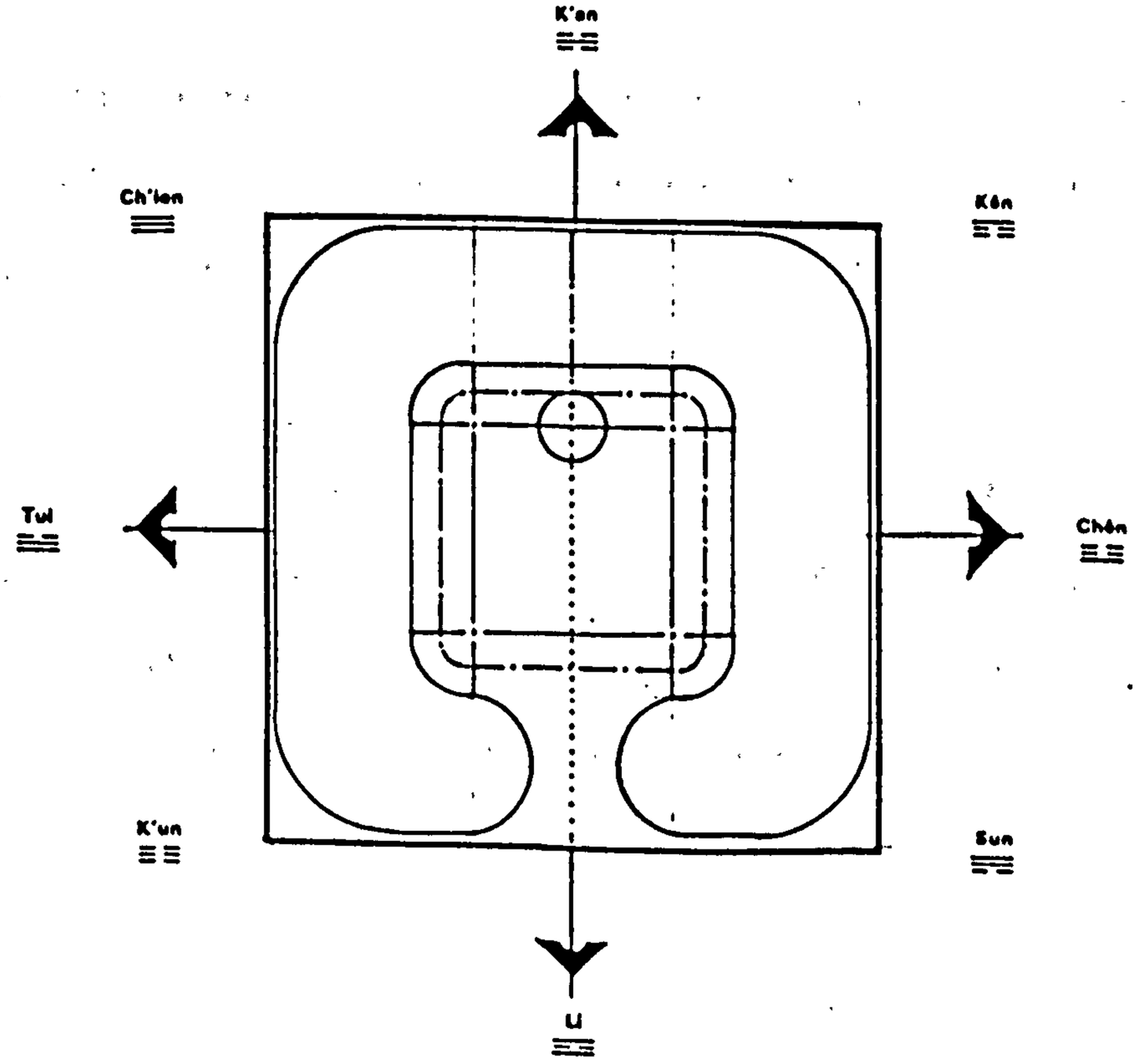
---

1) See Han Pao-Teh, "A Study of Feng Shui as A Chinese Concept of the Environment", p 135

derived from the concept of Ch'i and the cosmic framework, and set the guidelines for a desirable living environment. And although most Chinese could not reside at an ideal site as recommended by Yang Chai Theory, they were able to recreate this model in the spatial organisation of the their courtyard house.

The symbolic meaning of this ideal form played an important role in shaping people's residences. It is interesting when we compare the traditional courtyard house form (described in Part 1, Chapter 2) with the form of an ideal site and find that the basic courtyard unit is not only an embodiment of the cosmic framework, but also an ideal container of Ch'i. (See Figure 2-3-8).

Figure 2-3-8 Combination of the cosmic framework and the ideal house - container of Ch'i



As can be seen in the diagram, it is clear that in the courtyard house, the court is surrounded by lineal rooms, corridors and walls. The ancestor hall, the most important room of the house, is situated at the northern end of the central axis. The main entrance on the side opposite the ancestral hall is also the entrance of heavenly Ch'i. The two side buildings to the left and right of the court symbolise the terrestrial configuration of the blue dragon and white tiger mountains in the ideal site of Yang Chai. The court in front of the ancestral hall, corresponding to the open space surrounded by the hills or mountains in an ideal site, is believed to be the space where lively Ch'i accumulates. In this way, the house fulfills the functions of containing lively Ch'i in the same way as the site.

2.3.3. Stars of the Five Elements and nine flying stars

Two groups of stars were employed in Yang Chai Theory - the stars of the Five Elements and the nine flying stars, and each was interpreted differently in the two schools (1).

The names of the stars of the Five Elements, also known as the "five omens" (五 緯), were derived from the Five Elements of the cosmic framework (cf. Part 2, Chapter 2). The five stars Metal, Wood, Water, Fire and Earth were each believed to occupy one of the four directions and the centre of heaven. A passage in Tso Chuan says: "The five stars are named Sui-hsing (歲 星)in the east, Ying-ho (熒 惑) in the south, Tai-pai (太 白) in the west, Ch'en-hsing (辰 星) in the north and Cheng-hsin (鎮 星) at

---

1) The stars may not have been actual physical stars, but were merely so named to represent the influence of celestial bodies on the fate of man.

the centre" (1).

The History of the Former Han Dynasty relates these five stars to the Five Elements: "Ch'en-hsing possesses the quality of water, Ying-ho possesses the quality of fire, Tai-pai possesses the quality of metal, Sui-hsing possesses the quality of wood and Cheng-hsing possesses the quality of earth" (2).

The stars of the Five Elements were given earthly shapes in the forms of mountains. They were the basis of the school of forms, and will be discussed after an introduction on the nine flying stars.

Both Schools of Yang Chai Theory contained the concept of the nine flying stars (3). Han Pao-Teh contends that the nine flying stars originated in the ancient Chinese wish to make concrete their image of the heavens and may not correspond to actual celestial bodies. However, given celestial names, the nine flying stars possessed the ability to infer the fortune and misfortune of people and places (4). The idea of the nine flying stars existed already in the Sung Dynasty (A.D. 960-1279), but it is unclear when people began to view them as the indication of fortune or misfortune (5).

Like Han, Stephen Skinner believes that the nine flying stars are

---

1) See Tso Chuan 左傳 , a commentary on the state of Lu (722-481 B.C.). Chapter Ku-liang Chuan, quoted in Nan Hai Chu jen, The Theory of K'an Yü, p 79
2) See Pan-ku, 前漢書 (History of the Former Han Dynasty), Chapter on Lü Li Chih, quoted in Nan Hai Chu jen, The Theory of K'an Yü, p 79
3) The nine flying stars were first named in the 北斗七星延命經 (Life-Extending Canon of the Seven Stars of the Big Dipper). See Nan Hai Chu Jen, The Theory of K'an Yü, p 79
4) See Han Pao-Teh, "A Study of Feng Shui" in Bulletin of Environmental Studies, p 141
5) See Chang Chien, Chiao Cheng Ti Li Hsin Shu in Han Pao-Teh, "A Study of Feng Shui" in Bulletin of Environmental Studies, p 149

not really stars at all, as "they have no specific astronomical or astrological locations" (1). However, Edkins (1872) was of the view that these stars occupied a definite position in space as the seven stars of the Dipper (2) plus two nearby stars. Indicating the importance of these nine stars in Feng Shui practices as tropical bodies which roam through the cosmos, Feuchtwang quotes from Edkins: "(They) move through the atmosphere and cause prosperity and adversity of men" (3).

Whether the nine flying stars are purely imaginative or real physical objects is not as significant as the fact that the Chinese believed the nine flying stars to possess the characteristics of indicating the fate of man. In my opinion, the indication of man's fortune or misfortune through the nine flying stars were purely inventions of ancient diviners and Feng Shui masters. Seven of the names of the nine flying stars were taken from the stars of the Big Dipper, while two more were added to make nine (4), the square of the number of heaven. The matching of the name of a star to the good or bad destiny man may encounter in life arose from the Chinese belief that a close mutual influence existed between things in the physical universe and human affairs. By observing natural phenomena, future misfortune or prosperity could be predicted (5).

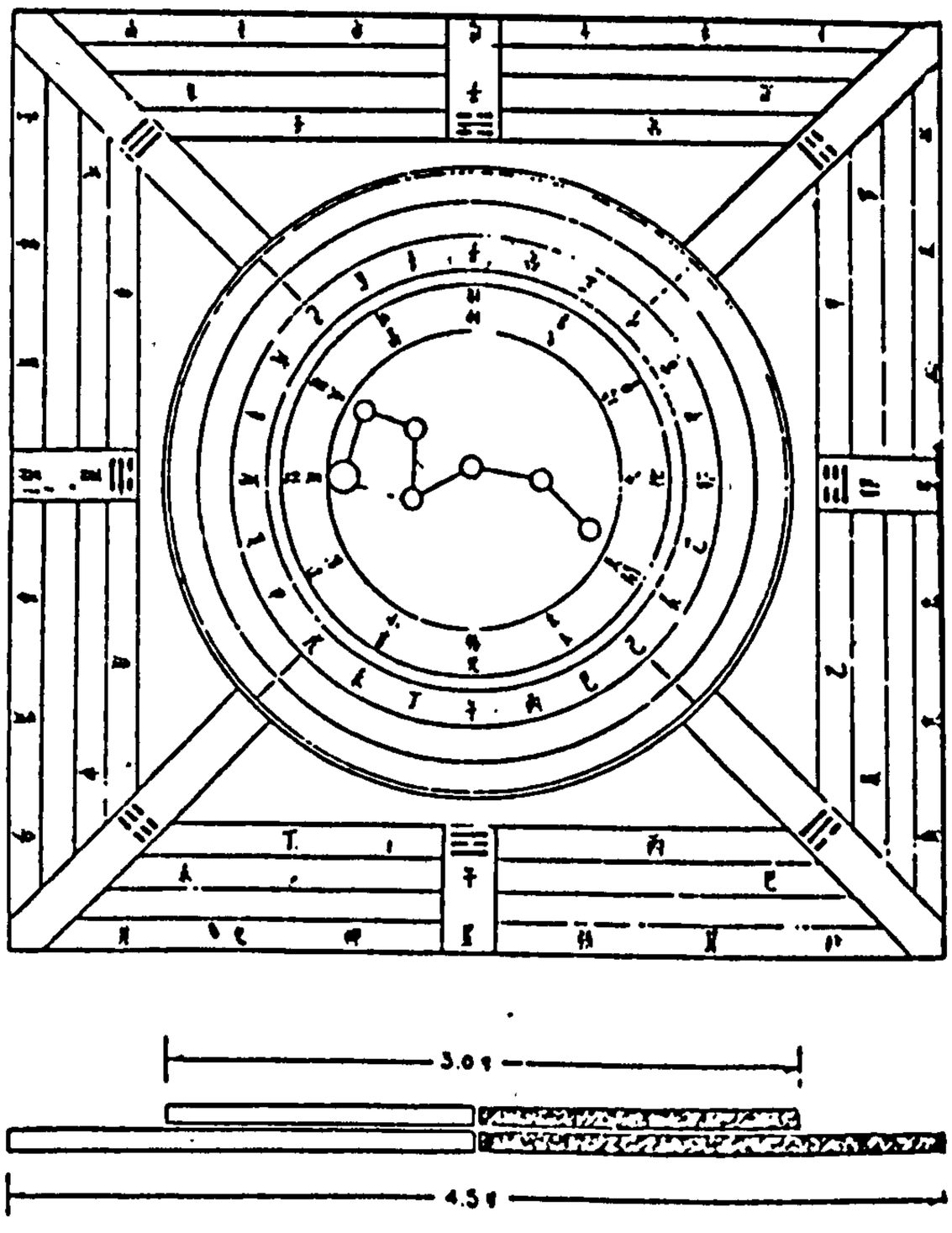
In the astrology of the Han Dynasty, the centre of heaven was believed to be the Big Dipper. Therefore the shape of the Big

---

1) See Skinner, The Living Earth Manual, p 40
2) Also named the Great Bear Constellation or Pei Tou (北斗) which rotates annually around the North Polar Star
3) See Stephen Feuchtwang, An Anthropological Analysis of Chinese Geomancy, (Vientiene: Vithaga, 1974)
4) See 北斗七星延命經 (Life-Extending Canon of the Seven Stars of the Big Dipper) quoted in Nan Hai Chu Jen, The Theory of K'an Yü, p 79
5) See Fung Yu-Lan, A History of Chinese Philosophy, Vol. 1, p 26

Dipper was placed at the centre of the round heavenly plate of the Han diviner's board, and by turning this board, the stars pointed to a section of the lower earth plate with its various indications to denote auspiciousness or inauspiciousness (1) (see Figure 2-3-9).

Figure 2-3-9 Diviner's Board from the Han Dynasty
(Needham, Science and Civilisation, Vol. 4, p 1, p 203)



---

1) For a detailed description of the Han diviner's board, see Joseph Needham, Science and Civilisation in China, Vol. 4, Part 1, pp 202-203

Likewise, Yang Chai Theory believed that the nine flying stars could indicate the fate of man, although the methods differed. In the School of Forms, following the belief that "the stars in heaven and the forms of the earth correspond with each other" (天星地形相感應), the nine flying stars took the shapes of mountains to wield their influence on a site, while in the School of Orientation, it represented the good or bad effect of two trigrams on each other.

The significance of each star and the type of influence it wields is first of all indicated by the first listed name; while the name inside the brackets for each star is the popularly used common name.

T'an-lang (Sheng Ch'i)	Covetous wolf (Lively breath)
Chü-men (Tien-i)	Great gate (Heavenly doctor)
Lu-Ts'un (Huo-hai)	Salary preserved (Injury)
Wen-ch'ü (Liu Sha)	Civil or literary windings (Six fierce gods)
Lien-chen (Wu-kuei)	Purity, honesty and uprightness (Five demons)
Wu-ch'ü (Yen-nien)	Military windings (Long life)
P'o-chün (Chüeh-ming)	Broken army (Short life)
Tso-fu (Tso fu-wei)	Assistant to the celestial emperor (left hidden position)
Yu-pi (Yu fu-wei)	Assistant to the celestial emperor (right hidden position)

Chinese people group the effects of the nine flying stars into two categories. Those having beneficial effects are: Covetous wolf

(T'an-lang); Great gate (Chü-men); Military windings (Wu-ch'ü) and the Left assistant to the celestial emperor (Tso-fu); while those stars with evil effects are: Salary preserved (Lu-ts'un); Civil or Literary windings (Wen-ch'ü); Purity, honesty and uprightness (Lien-chen),; Broken army (P'o-chün). The Right assistant to the celestial emperor (Yu-pi) is considered neutral, being neither lucky nor unlucky (1). This classification is also supported by Nan Hai Chu Jen in The Theory of K'an Yü where he names T'an-lang, Chü-men and Wu-ch'ü the three lucky powers, and P'o-chün, Lu-ts'un, Lien-chen and Wen-ch'ü the four malicious directions. However, he regards both assistants to the celestial emperor as being neutral (2).

Although both Schools of Yang Chai Theory shared the concept of the nine flying stars and their two categories, the stars were shown to have different meanings in the two schools.

In the School of Forms, two groups of stars (stars of the Five Elements and nine flying stars) were believed to wield their influence by manifesting themselves in the forms found in the landscape. (See Figure 2-3-10). The forms taken by the stars of the Five Elements are shown in Ti Li Jen Tzu Shü Chih 地理人子須知 (Common Knowledge of Ti Li) as follows:

The star of the element fire takes the shape of a mountain or hill with a sharp peak ∧ , representing the flames.

The star of the element metal is represented by mountain with a gently rounded top ⌒ .

The star of the element wood is seen in a high and straight or

---

1) See Sung Shao-Kung, 為你解風水 (Explanations of Feng Shui), (Taipei: Shih Pao, 1985), p 238
2) See Nan Hai Chu Jen, The Theory of K'an Yü, p 136

steep mountain which has a rounded top ∩ , resembling a tree trunk.

The star of the element earth is shown in a rectangular-shaped hill which ends in a wide and flat plateau ⌒ .

The star of the element water is shown in a mountain with an irregular shaped or twisted top which resembles a body of water (1).

Generally speaking, the five mountain forms are described as being sharp, round, straight, rectangular and twisted.

In areas where more than one mountain exists, the relationship between the properties of the elements are taken into account to decide the auspiciousness of a site; thus two mountains can either be mutually productive or one can conquer the other depending on the properties they represent. For example, a mountain with water formation and one with a wood formation indicate an auspicious site, as water produces wood; while a wood formation near an earth formation signifies an unlucky site.

However, these five elemental shapes of mountains cannot encompass all mountain forms, and the mountain formations of the nine flying stars were developed. The mountain shapes which represent the nine flying stars consist of the five basic forms mentioned (sharp, round, straight, rectangular and twisted), with the addition of the round form added onto the other four shapes (round on sharp is T'an-lang, round on straight is Lu-t'sun, round on rectangular is P'o-chün and round and twisted is Yü-pi) (2). See Figure 2-3-11.

---

1) See Ti Li Jen Tzu Shü Chih 地理人子須知 (Common Knowledge of Ti Li), Vol. 3, Ming Dynasty, (reprinted Hsinchu: Chu-Lin Publ. 1979)
2) See Li Mo-Chai, 闢徑集 (Opening the Way), Chapter on five stars and Five Elements, quoted in Nan Hai Chu Jen, The Theory of K'an Yü, pp 79-80

Figure 2-3-10 Mountain forms of the Five Elements (based on figures in Ti Li Jen Chih Shü Chi - Common Knowledge of Ti Li, Vol 3)

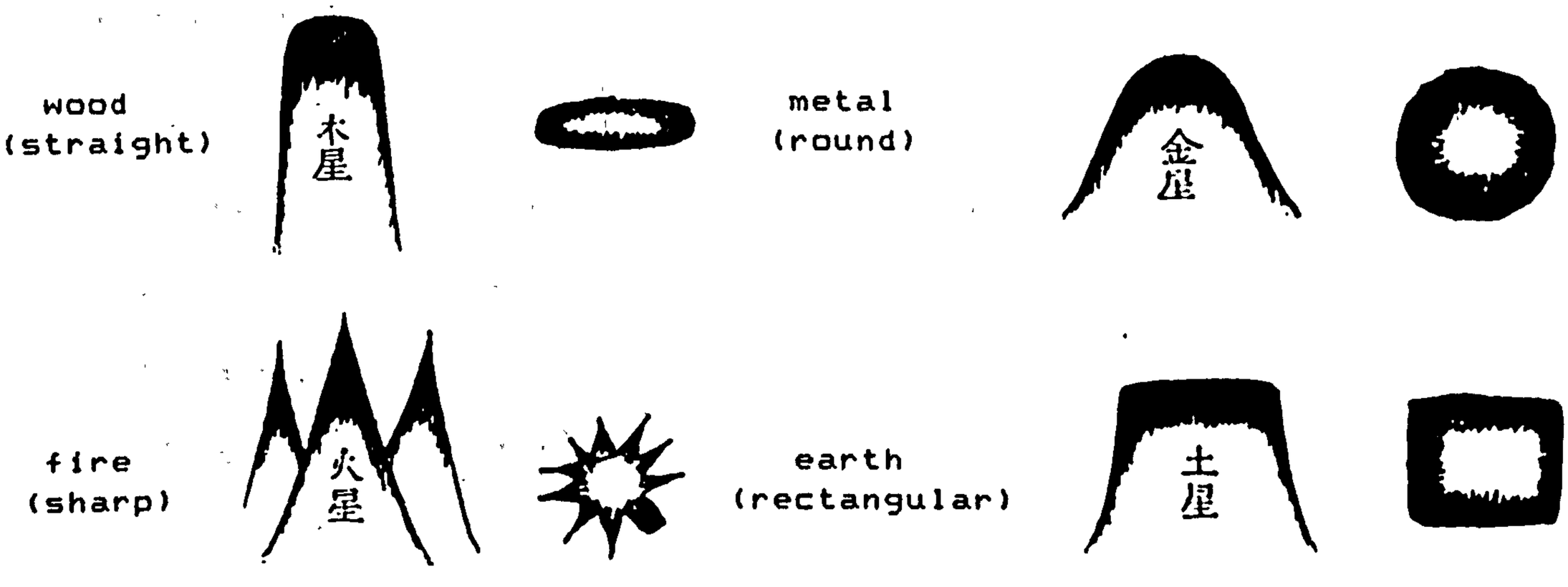
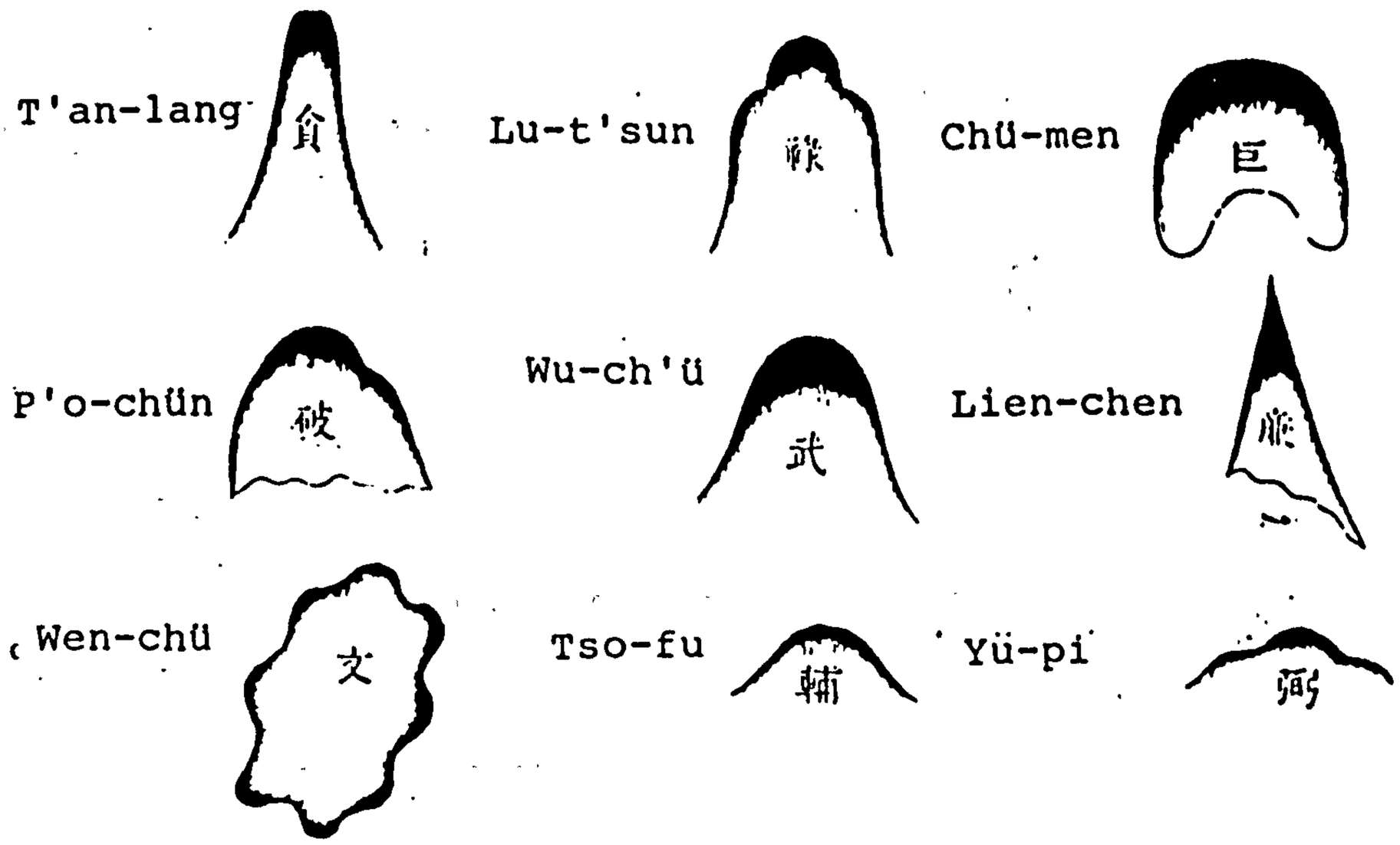


Figure 2-3-11 Mountain forms of nine flying stars



Only when a single mountain exists near a house site is it necessary to take the influence wielded by the nine flying stars and their representative mountain formations into serious consideration.

Stephen Skinner notes that the influence the stars wielded on the elemental shapes of mountains extended to include effects on people's careers. He mentions two examples: the first told of the home of a military soldier; if within sight of the house there existed a mountain with the sloping shoulders of the Broken Army (P'o chün) formation, this disastrous configuration would bring misfortune unto the soldier, while Military windings (Wu-ch'ü) would have the opposite effect. The other points out that the presence of a Literary windings (Wen-chü) formation would intensify literary efforts, which contributed in the traditional Chinese system to advancement in the civil service (1). The various mountain forms of the stars and their influences are described and embroidered at great length in the 撼龍經 (Han Lung Ching), found in the 1726 edition of the Imperial Encyclopedia.

In the School of Forms, the basic theme remained the flow of Ch'i and its influence on people, but as Ch'i itself is not easily discernible, the formations of the nine flying stars and Five Elements were used to represent the influence of nature on the site.

In the School of Orientation, the nine flying stars denoted the effects of two trigrams on each other. As different objects were attributed to one of the trigrams, the position of the front door (and thereby the orientation of the house) was matched to a trigram,

---

1) Stephen Skinner, The Living Earth Manual, p 40

as was the head of the household. The trigram is was an important element in the relationship between man and Nature and contributed much to the structuring of the ideal residence. The School of Orientation believed the ideal residence to be the interaction between a personal and spatial trigram, which formed a matrix corresponding to the effects of the nine stars we mentioned previously in the two categories (see Figure 2-3-12).

By using the matrix showing the effects of the nine flying stars as the interaction between a spatial trigram and man's personal trigram, it was possible for the School of Orientation to find those directions which resulted in a beneficial star and thus find the orientation of the house and place people's front doors at a position which was auspicious, so as to avoid the inauspicious directions. The methods of locating the correct orientation and position of doors are explained in 2.3.4.

Although the two schools of Yang Chai employed different methods of interpreting the nine flying stars, they adhered to the cosmic framework and the concept of Ch'i in their attempt to understand the special relationship between man and his living environment.

In the history of Chinese architecture, the important step of choosing the residential site changed from the employment of divination methods of the pre-Han period to the common usage and dependence by the School of forms on the stars of the Five Elements and the nine flying stars of the traditional period. Yang Chai Theory incorporated a complex set of principles and methods, of which only a standard of judging a lucky or unlucky site has been introduced. The other four aspects which will be discussed are:

Figure 2-3-12

Effect / Spatial trigram Personal trigram	Chien ☰	Tui ☱	Li ☲	Ch'en ☳	Sun ☴	Kan ☵	K'en ☶	K'un ☷
Chien ☰	FP *	TL O	PC X	LC X	LT X	WnC X	CM O	WuC O
Tui ☱	TL O	FP *	LC X	PC X	WnC X	LT X	WuC O	CM O
Li ☲	PC X	LC X	FP *	TL O	CM O	WuC O	LC X	WnC X
Ch'en ☳	LC X	PC X	TL O	FP *	WuC O	CM O	WnC X	LT X
Sun ☴	LT X	WnC X	CM O	WuC O	FP *	TL O	PC X	LC X
Kan ☵	WnC X	LT X	WuC O	CM O	TL O	FP *	LC X	PC X
K'en ☶	CM O	WuC O	LT X	WnC X	PC X	LC X	FP *	TL O
K'un ☷	WuC O	CM O	WnC X	LT X	LC X	PC X	TL O	FP *

(1)

The following table shows when the interaction between two trigrams corresponds to a certain star:

	Nine flying stars	Personal on spatial trigram
O	T'an-lang (TL)	middle & lower tiers are the same
O	Chü-men (CM)	upper tiers are the same
X	Lu-ts'un (LT)	upper and middle tiers are the same
X	Wen-ch'ü (WnC)	middle tiers are the same
X	Lien-chen (LC)	lower tiers are the same
O	Wu-ch'ü (WuC)	three tiers are all different
X	P'o-chün (PC)	upper and lower tiers are the same
*	Tso-fu, Yu-pi (FP)	the three tiers are the same

1) O = auspicious, X = inauspicious, * = neutral effect

1. The conditions required for the ideal blend of heavenly Ch'i with earthly Ch'i to enable a site to flourish
2. The method of orienting the house and locating the front door according to the personal trigram of the head of household (used by the School of Orientation)
3. The arrangement of architectural elements (windows, doors, spirit walls, etc) to allow an unobstructed flow of Ch'i within the house
4. The meaning of the decorative elements, the ideal measurement of the house and construction taboos.

2.3.4. Finding the correct orientation and placing the front door at the proper position in the house

Chinese houses shared the same orientation as the ancestral hall, and as the dwelling of the ancestral spirits, the ancestral hall should face a direction from where it could receive heavenly Ch'i. Therefore to Chinese minds, the location of the front door played a crucial role in the living environment, as the door was at the same time the container's opening through which heavenly Ch'i entered. Thus, the front door was considered best when it opened to the approach of beneficial heavenly Ch'i - the auspicious position of which could be found according to the nine flying stars. Fo Yin's warns against placing doors corresponding to the malicious positions of the nine flying stars as it was believed that this would result in the lack of heavenly Ch'i and cause misfortune to befall the family (1).

---

1) See Fo Yin, 陰陽風水講義 Notes on Yin Yang Feng Shui, Part II, Vol. 1, p 1

In Yang Chai theory, the relationship between a person and the orientation of the house or the location of the front door of the house was denoted by the interaction of personal and spatial trigrams, which represented either auspiciousness or inauspiciousness through the nine flying stars.

Fu Yuan is the name for one's personal trigram (1). The author of Ten Books of Yang Chai explained how the Fu Yuan could be obtained by calculating the year of one's birth by the lunar calendar:

> "Yin Yang, the five elements, the lunar calendar and the numbers of I which exist between heaven and earth are all interrelated. The calendar considers one hundred and eighty years as a big cycle of heaven. The first sixty years is named Shang Yuan, the second sixty Chung Yuan, and the last sixty Hsia Yuan. These three subdivided sections are named San Yuan. Amalgamated with Lo Shu, nine halls, and eight trigrams, each one of one hundred eighty years has its own celestial palace... For people born in the same year, the trigram of that year is their Fu Yuan". (2)

For a detailed explanation of Fu Yuan, it is necessary to turn to the elements of the Chinese calendar which was designated by cyclic images. (See Appendix 3-3). It was emphasised in Yang Chai Theory that the Fu Yuan of a person was fixed when the person was born, and the application of a wrong trigram would cause calamity to a person's life. In this section, I would like to introduce the method of finding the correct orientation of the house and thereby the location of the front door based on the Fu Yuan of the head of the household.

The interaction between personal and spatial trigrams is best explained through practical examples. The method of Eight Dwellings of the Book of Chou (3) is described in the Ten Books of Yang Chai

---

1) Fu Teh Kung and Fu Wei are also terms which represent the same subject
2) Ten Books of Yang Chai, p.59
3) 八宅周書法, also known as the Trigrams of the Big Cycle of Heaven 大游年卦

and deals with the orientation of a house and the auspicious location of the front door by characterising the effect (or the corresponding flying star) of the Fu Yuan on the specific trigram of each the cardinal points. This works by placing the personal trigram or Fu Yuan on the trigram of each of the eight cardinal points of the cosmic framework to find where beneficial or malicious effects arise.

For instance, the head of household with the Fu Yuan K'an (坎) can find the correct orientation of his house and then the most suitable position for the front door by placing his personal trigram on the spatial trigram of each cardinal point in the cosmic framework and listing each effect as shown in the two diagrams. Figure 2-3-13 a. shows the combination of Fu Yuan and the spatial trigram on the cosmic framework, while in Figure 2-3-13 b. we can see the effect of the interaction between the personal and spatial trigram at the different cardinal points which is indicated by the flying stars.

In general, T'an-lang, Chü-men and Wu-chü indicated suitable orientations for the house, and accordingly, also the position of the front door, and as Fu-pi would not bring evil effects to the inhabitants, it was also considered a satisfactory orientation and location. These orientations and positions for doorways were chosen to ensure the inhabitants vitality inn their work, good relations with neighbours and friends, and prosperity in their lives. The female members would also manage family affairs best under these conditions. The remaining directions were considered unsuitable for orienting the house and placing doors, as they produced negative effects such as "causing conflict" at Lien-chen, "making mistakes"

Figures 2-3-13 a. The combination of Fu Yuan and spatial trigram on the cosmic framework
b. Interactions of the two at different cardinal points

Figure 2-3-13 a.

☲☲ Personal trigram (K'an)

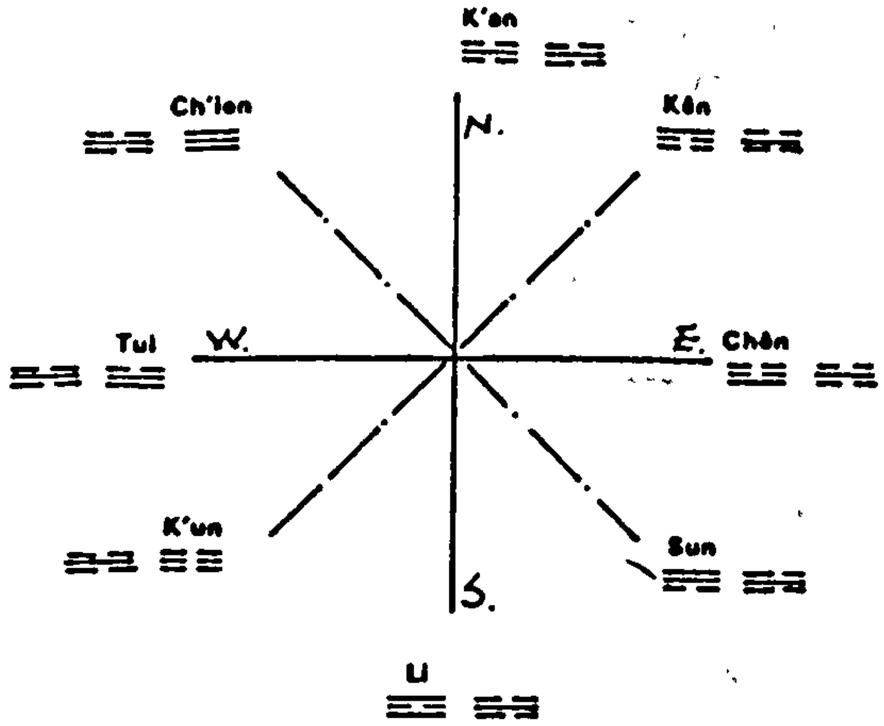
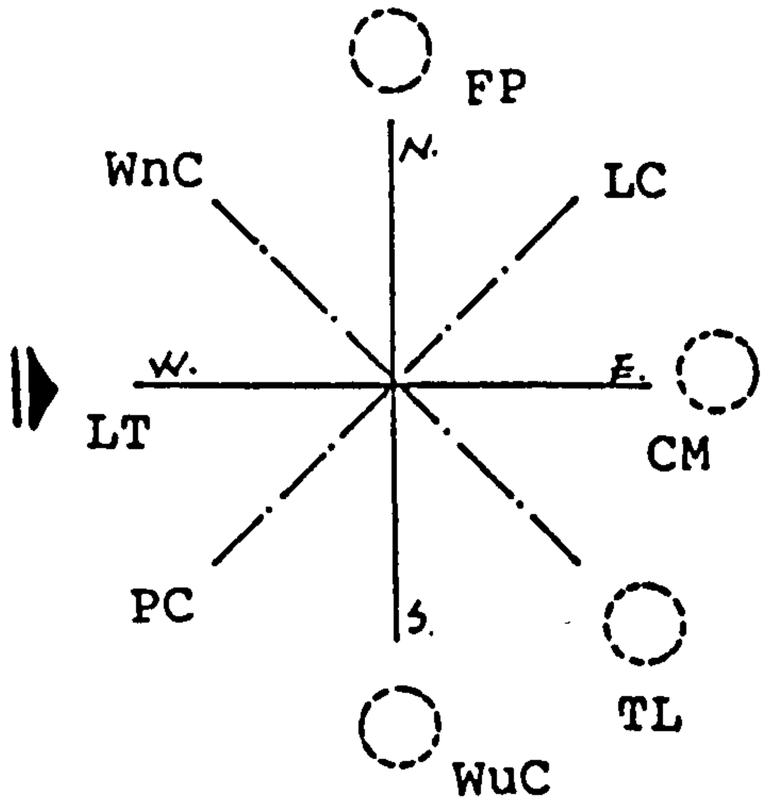


Figure 2-3-13 b.

◌ Auspicious cardinal points



at Lu-ts'un, etc. (1).

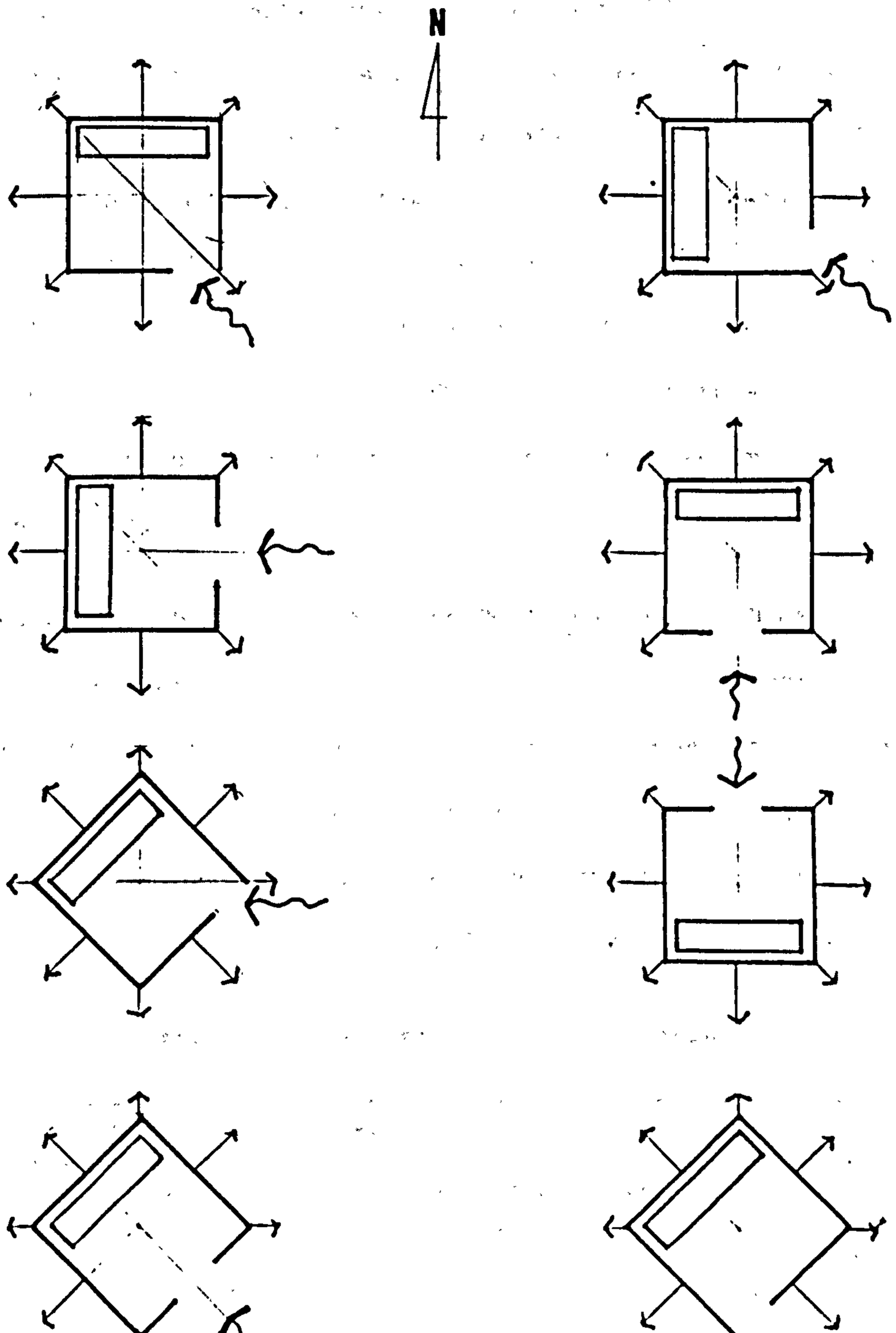
In this case, four auspicious stars Wu-ch'ü, T'an-lang, Chü-men and Fu-pi stars are at the directions North, East, South, and South-East, so that people with the Fu Yuan K'an should orientate their house and also allocate the front door in those positions. If we place the cosmic framework on the traditional courtyard house, the Ten Books of Yang Chai suggests that the person with the Fu Yuan K'an should first orientate his house toward one of the lucky directions and then place the front door in the eastern corner of the southern building as his first choice, followed by the southern corner of the eastern building or at the centre of the northern building, (2) as shown in Figure 2-3-14.

---

1) See Ten Books of Yang Chai, p 125
2) See Ten Books of Yang Chai, p.79

We can see in Figure 2-3-14 that the east, southeast, south and north are best for orienting the house and locating the front door of a person with the Fu Yuan K'an, as these are the locations with the spatial trigrams which result in the auspicious stars of the nine flying stars, from which direction the entrance of heavenly Ch'i is most beneficial to him and his family.

Figures 2-3-14 Orientation of the house and location of the front door for person with Fu Yuan K'an.



Only when the front door is located in the west can the house not receive heavenly Ch'i from the lucky directions. The best orientation for the person with Fu Yuan K'an features the front door in the southeast corner of the compound, appropriately named the door of lively Ch'i (Sheng Ch'i Men); while orientations with both the door of fortune and virtue (Fu Teh Men) at the north and the door of long life (Yen Nien Men) at the south can also be considered (1).

Indeed, some lucky orientations are not actually practical or possible, such as in urban areas where houses are placed in a grid-shaped plan, or if the site of the house allows an extension of the house only in one direction, so that the choice of orientation may be strongly limited. In cases where the house can only be built with an unsuitable orientation, the location of the front door at a lucky position can rectify the situation. This is a a main reason why many houses have the front door on the sides and not directly facing the ancestral hall (2).

Another example in the method of Eight Dwellings of the Book of Chou recommends a person with the Fu Yuan Ch'ien (乾) to orient his house to the directions of west, northwest, southwest or northeast, and to place his front door either at the centre of the western building, the west or east corner of the northern building or the west corner of the southern building. See Figures 2-3-15 (a-d).

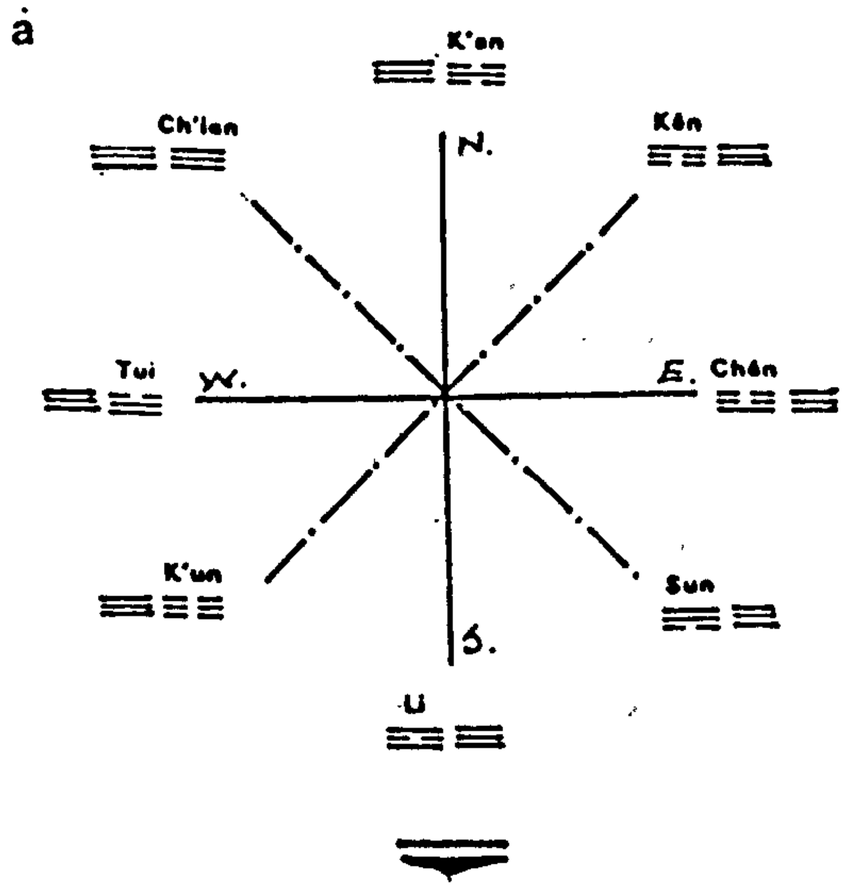
These are the directions of the auspicious stars shown on the

---

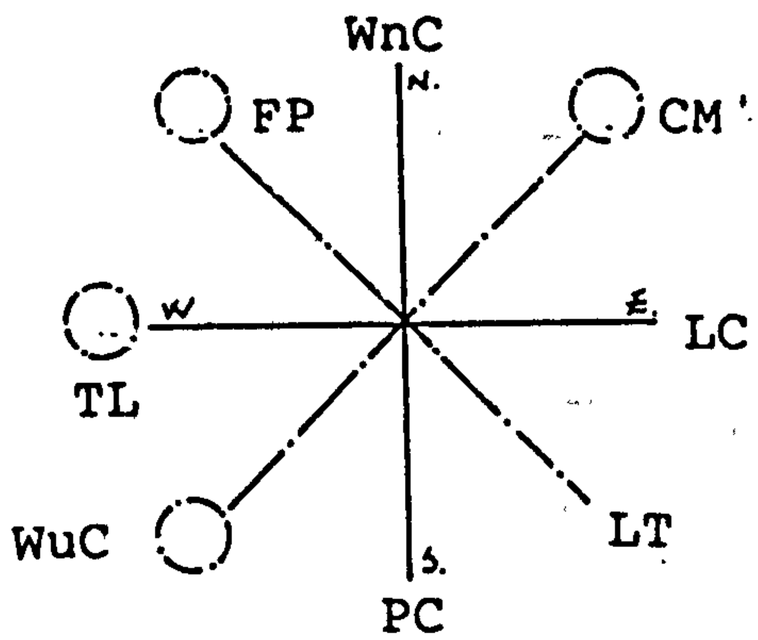
1) These are the names of doors at auspicious positions commonly used in Yang Chai Theory
2) In cities in Shantung, Shansi, Honan, Hopei, the houses are built on a North-South grid-shaped plan and many houses have their front doors located on the southeast, northeast and northwest corners of the houses. See Liu Tun-Chen, General Account of the Chinese House, p 30

Figures 2-3-15 (a-c) Choices for a person with Fu Yuan Ch'ien

a



b



auspicious cardinal points

c

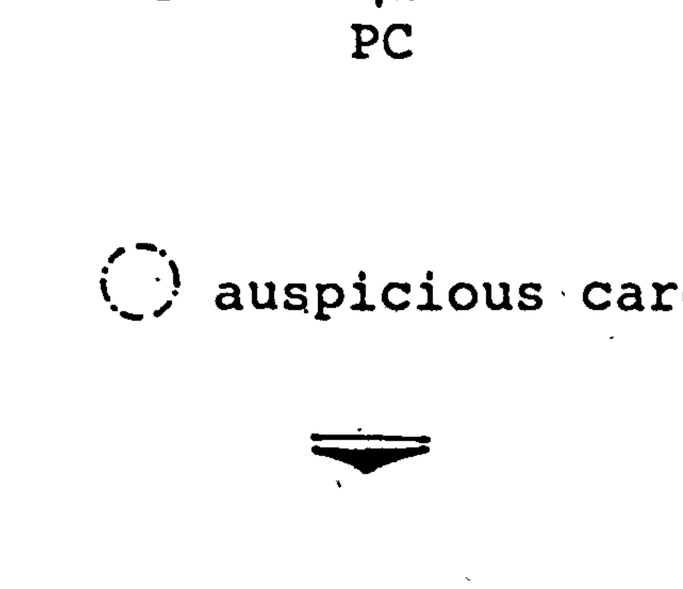
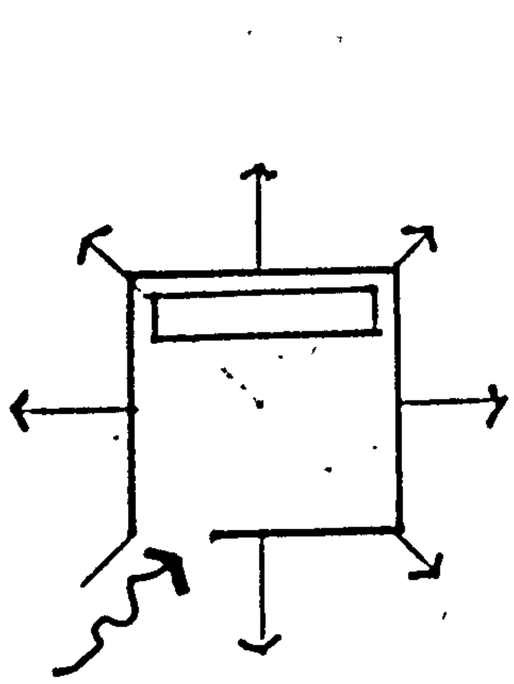
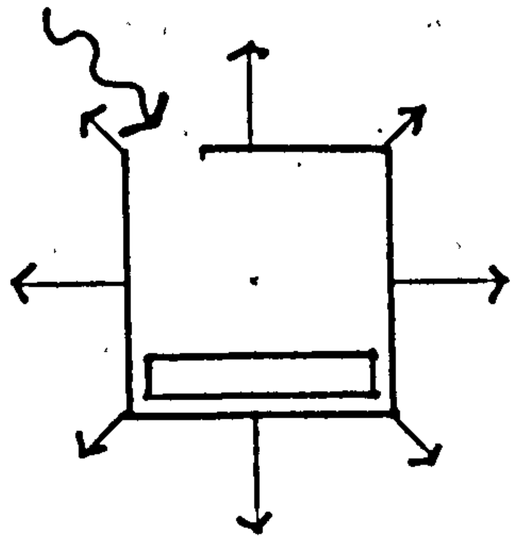
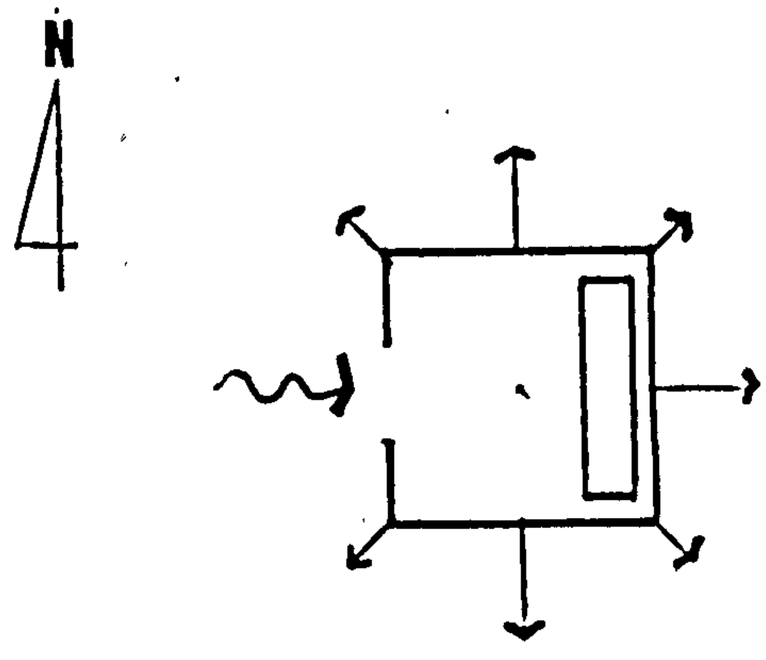
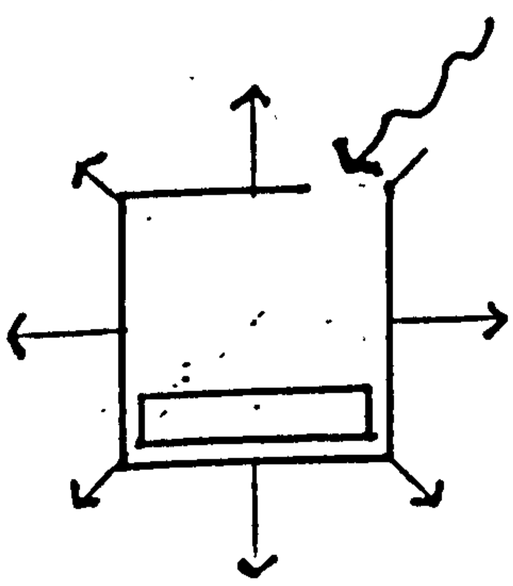


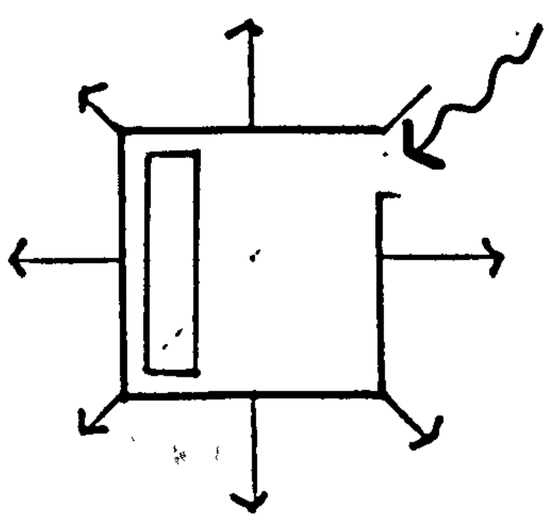
Figure 2-3-16 12 suggestions for orientation and front door of person with Fu Yuan Ch'ien

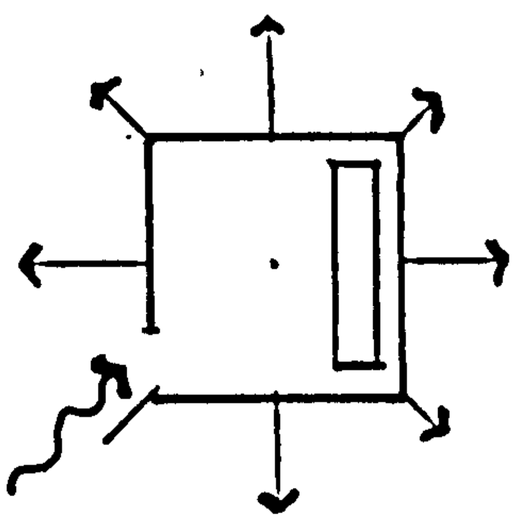


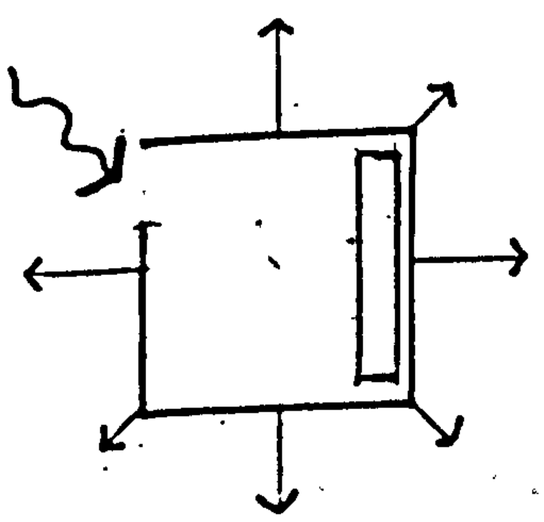


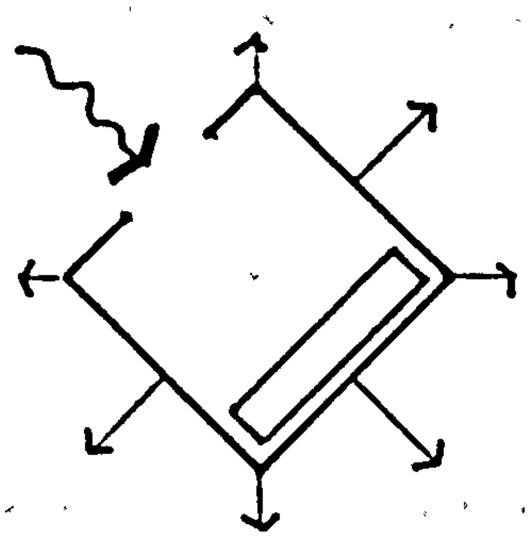


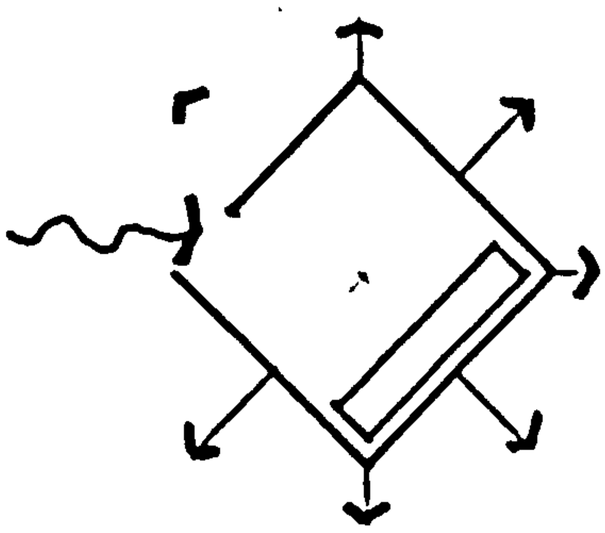


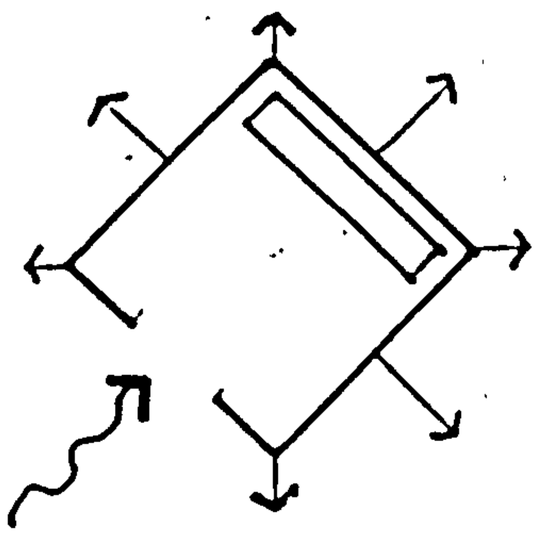


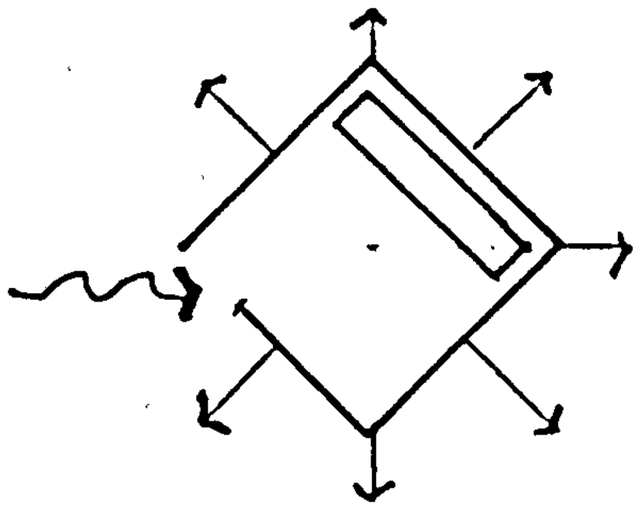


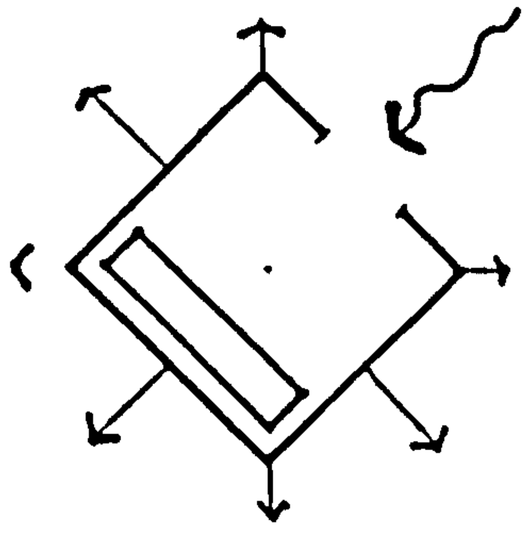












cosmic framework (west, northwest, northeast and southwest) where the Ch'ien person can live in harmony with nature and avoid meeting destruction or disturbance in his daily life. It should be emphasised that both the centre of the northern building and the centre of the southern building are not suitable for placing the front doors of Ch'ien people, as both these positions are located at the points of the Wen Ch'ü and P'o Ch'ün flying stars which are the worst positions to receive heavenly Ch'i in as they bring harm to their occupants.

Twelve suggestions are brought forth in the books of Yang Chai which are illustrated in Figure 2-3-16. The illustrations show the positions for the front door of the Ch'ien person through which the house has a greater chance of accumulating lively Ch'i.

The method I have just described was mainly employed in finding the auspicious orientation and position of the front door through the use of the cosmic framework and the concept of Ch'i. Thus to the Chinese mind, space was divided into sections, each having its own qualities decided by the trigram it belonged to, and capable of influencing the lives of the people dwelling therein.

2.3.5. The ideal measurement of doors and windows

The correct size and scale of doors and windows were also of utmost importance to the Chinese. Fo Yin commented on the significance of the correct scale for doors and said: "The two leaves of front door should be well balanced; if the door is too high, the family will produce only female offspring; if the door is too small, crime lurks in the family. If the left leaf is larger than the right,

calamity will befall the master's spouse; if the right leaf is larger than the left, the master himself will meet an early death" (1).

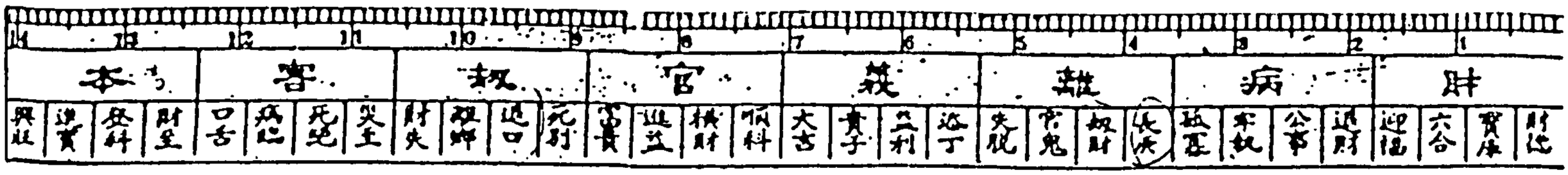
Although we are unable to uncover the reasons behind such warnings, this passage clearly shows the importance of the size of the doors in Chinese houses. And in actual practice, the size of Chinese doors followed an ideal rule commonly used by craftsmen which indicated the auspiciousness and inauspiciousness of measurements (2).

The original ideal rule, known as the Lu Ban rule, was developed by a master carpenter Lu Ban during the Warring States period (3). It was first commonly employed in the region to the south of the Yangtze River and along the southeastern coast of China, but its usage later extended to the capital city of Peking and other northern regions when southern craftsmen were summoned to the north by the emperor and brought the Lu Ban rule with them (4). The Lu Ban rule became an indispensable tool for the craftsmen and carpenters of the traditional period. Two further types of carpenter rules were developed from the Lu Ban rule - the door rule for Yang Chai (houses) and Ting Lan rule for Yin Chai (graves). When these two later rules became commonly adopted is unknown, but they replaced the Lu Ban rule sometime in the traditional period, and the door rule is still in use today for the measurement of doors, windows and even furniture (5).

---

1) Fo Yin, Notes on Yin Yang Feng Shui, Part 2, Vol. 3, p 1
2) Guo Husheng, "The Builder's Guide of Lu Ban and the Lu Ban Classic", in History of Technical Sciences, No. 7, (Shanghai: Technical Sciences Publishing Co.) June 1981, p 102
3) Chen Yuan Ching, Notes on Craftsmanship, Vol. 6, Sung Dynasty
4) Guo Husheng, The Builder's Guide, p 103
5) Liu Tun-Cheng,明《魯般營造正式》鈔本校讀記 (On Constructing Methods by Lu Ban), Wen Wu, 1962, No. 2, pp 9-11

Figure 2-3-17 Door rule 1:2



As we see in Figure 2-3-17, the door rule is actually a ruler divided into eight sections, with each section further subdivided into four segments. Four of the sections indicate auspiciousness; they are starting from the right: Section 1 ts'ai (wealth), with the four segments ts'ai teh (luck in making money), pao k'u (treasure house), liu ho (wealth from all directions), ying fu (receiving luck); Section 4 i (righteousness), with the four segments t'ien ting (bearing sons), i li (increasing fortune), kuei tzu (noble son), ta chi (great fortune); Section 5 kuan (officialdom), subdivided into shun ko (smooth promotion), heng ts'ai (a windfall), chin i (progress), fu kuei (wealth and high position); and finally Section 8 chi (auspiciousness), with the segments ts'ai chih (receiving wealth), teng k'o (to pass the civil service examination), chin pao (incoming treasure) and hsing wang (prosperity).

The four sections which indicate inauspiciousness are: Section 2 ping (illness), subdivided into t'ui ts'ai (losing wealth), kung shih (adversity in business), lao chih (jail sentence), ku kua (orphans and widows); Section 3 li (separation), with the four segments ch'ang keng (evil star), chieh ts'ai (ill fortune), kuan kuei (adversity in career), and shih t'o (breaking relations); Section 6 chieh (disaster), divided into szu pieh (death), t'ui

k'ou (malicious tongue), li hsiang (leaving one's native place), ts'ai shih (losing wealth); and lastly hai (harm), with the sections chai chih (imminent calamity), szu chüeh (death), ping ling (illness) and kou she (quarrels).

Half the measurements on the door rule were clearly advantageous, while the other half were malefic indications. The Chinese dread of shame, ill fortune and death led to their firm belief in the effectiveness of a carpenter's rule which indicated auspiciousness or inauspiciouness and to its continuous use for over a long period of Chinese history.

The length of the door rule is one chih four ts'un and four fen (1) Each section on the rule is 1 ts'un 8 fen, while each segment is 4.5 fen. The door rule was applied in the following manner: The length of the ruler and its multiples were subtracted from the width of the door; only the measurement of the remaining portion (obviously less than 42.8 cm) was crucial. If a door was 4 chih 3 ts'un 8 fen (= 132.71 cm), the crucial portion which remains after three whole ruler lengths are taken is 6 fen or 1.7 cm. This length falls in the second segment of the first section of the Lu Ban rule pao ku (treasure house) and indicates the future wealth of the family which uses this door. Likewise, the portion remaining after subtracting the ruler lengths of a door which was 4 chih 6 ts'un 7 fen would be 3 ts'un 5 fen, which falls on the segment ku kua (orphans and widows) of the inauspicious section 2 (illness) and indicates illness and death of family members and must be avoided.

The door rule was originally used only for the measurement of

---

1) equivalent to 43.63 cm.
1 chih = 10 ts'un = 100 fen = 30.3 cm

doors, but because of its popularity among craftsmen and inhabitants, it was also applied to the measurement of windows and furniture after the Sung Dynasty (1). Certain auspicious measurements for doors and furniture were so commonly used that they became standardised and were handed down the generations, but their origin can be found in the measurements of the door rule.

2.3.6. The ideal measurement of the ancestral hall and the central courtyard

The auspicious measurements for doors and windows followed a set carpenter's rule, but in traditional China, the ideal measurement of the ancestral hall was obtained from verses which were handed down the generations by word of mouth. Usually the verses were only passed down verbally by master craftsmen to their craftsmen sons or close relatives; other workers and apprentices could only the learn the techniques of the craft but were not allowed to learn this very complicated system of ideal measurement (2). These verses were used for the measurement of the width and height of the ancestral hall (3).

A separate verse existed for each of the following: the ideal chih of the width (水平尺), the chih of the height (垂直尺), the ideal ts'un of the width (水平寸) and the ts'un of the height (垂直寸) (4). The chih verse combined the trigram of the orien-

---

1) Guo Husheng, The Builder's Guide, p 103
2) The traditional verses for auspicious measurements were recited by two master carpenters Shih Shui-Lung and Liao Shih-Cheng, and recorded by Shyu Yue-Jiann. See Shyu Yue-Jiann, "The Study of Chinese Traditional Construction Design Principles in Taiwan", in Bulletin of Environmental Studies, (Taipei: National Taiwan University), Vol. 2, No. 1, 1983, p 78
3) "Heavenly father" was used to denote the vertical measurement, while horizontal measurements were known as "earthly mother".
4) Chih and ts'un are comparable to the foot and the inch of the customary linear measure.

tation of the ancestral hall (1) with the nine flying stars and indicated the auspicious and inauspicious measurements for the ancestral hall. The ts'un verse used a combination of the trigram of the orientation of the ancestral hall with the colours and numbers of the nine halls to find the auspicious ts'un measurement.

Based on records of the verses, I shall simplify and elucidate the process of finding the ideal chih and ts'un for the ancestral hall by presenting a clear chart of all the possible measurements in chih and ts'un and indicate their auspiciousness or inauspiciousness for ancestral halls with different orientations.

In the search for the ideal measurement, the orientation of the ancestral hall (and of the house) must first be decided, either by Feng Shui masters or by craftsmen. The trigram to which the specific ancestral hall belongs is then found by using the cosmic framework, after which auspicious chih and ts'un measurements are found. Not all the auspicious chih and ts'un measurements for the specific orientation can be used; a further elimination is undertaken by applying the principles of the mutual production and mutual conquest order to the element (of the Five Elements) which corresponds to the orientation trigram and the element corresponding to the nine flying star (of the chih) and the nine halls (of the ts'un).

For example, an ancestral hall which is situated in the north and faces south belongs to the trigram k'an. From the chart, we find the length of the auspicious vertical chih measurement to be 3 and

---

1) A house or ancestral hall which faced south belonged to the trigram k'an; facing west belonged to the trigram ch'en, facing east belonged to tui and facing north belonged to li.

Chart with the ideal measurements for the height and width of the ancestral halls

A \ B		TL wood (O)	CM earth (O)	LT metal (X)	WnC water (X)	LC fire (X)	WuC metal (O)	PC metal (X)	TF earth (O)	YP earth (O)
K'an (water)	CH	7,16	8,17	9,18	1,10	2,11	3,12	4,13	5,14	6,15
	CW	5,14	6,15	7,16	8,17	9,18	1,10	2,11	3,12	4,13
	TH	9	1	2	3	4	5	6	7	8
	TW	6	7	8	9	1	2	3	4	5
K'en (earth)	CH	5,14	6,15	7,16	8,17	9,18	1,10	2,11	3,12	4,13
	CW	7,16	8,17	9,18	1,10	2,11	3,12	4,13	5,14	6,15
	TH	5	6	7	8	9	1	2	3	4
	TW	3	4	5	6	7	8	9	1	2
Ch'en (water)	CH	9,18	1,10	2,11	3,12	4,13	5,14	6,15	7,16	8,17
	CW	3,12	4,13	5,14	6,15	7,16	8,17	9,18	1,10	2,11
	TH	4	5	6	7	8	9	1	2	3
	TW	8	9	1	2	3	4	5	6	7
Sun (wood)	CH	6,15	7,16	8,17	9,18	1,10	2,11	3,12	4,13	5,14
	CW	2,11	3,12	4,13	5,14	6,15	7,16	8,17	9,18	1,10
	TH	6	7	8	9	1	2	3	4	5
	TW	4	5	6	7	8	9	1	2	3
Li (fire)	CH	4,13	5,14	6,15	7,16	8,17	9,18	1,10	2,11	3,12
	CW	6,15	7,16	8,17	9,18	1,10	2,11	3,12	4,13	5,14
	TH	3	4	5	6	7	8	9	1	2
	TW	9	1	2	3	4	5	6	7	8
K'un (earth)	CH	8,17	9,18	1,10	2,11	3,12	4,13	5,14	6,15	7,16
	CW	4,13	5,14	6,15	7,16	8,17	9,18	1,10	2,11	3,12
	TH	8	9	1	2	3	4	5	6	7
	TW	5	6	7	8	9	1	2	3	4
Tui (metal)	CH	1,10	2,11	3,12	4,13	5,14	6,15	7,16	8,17	9,18
	CW	8,17	9,18	1,10	2,11	3,12	4,13	5,14	6,15	7,16
	TH	2	3	4	5	6	7	8	9	1
	TW	7	8	9	1	2	3	4	5	6
Ch'ien (metal)	CH	2,11	3,12	4,13	5,14	6,15	7,16	8,17	9,18	1,10
	CW	9,18	1,10	2,11	3,12	4,13	5,14	6,15	7,16	8,17
	TH	7	8	9	1	2	3	4	5	6
	TW	1	2	3	4	5	6	7	8	9
A \ B		water (O)	earth (X)	wood (X)	wood (X)	earth (X)	metal (O)	metal (X)	earth (O)	fire (O)

CH: chih of the height CW: chih of the width
TH: ts'un of the height TW: ts'un of the width

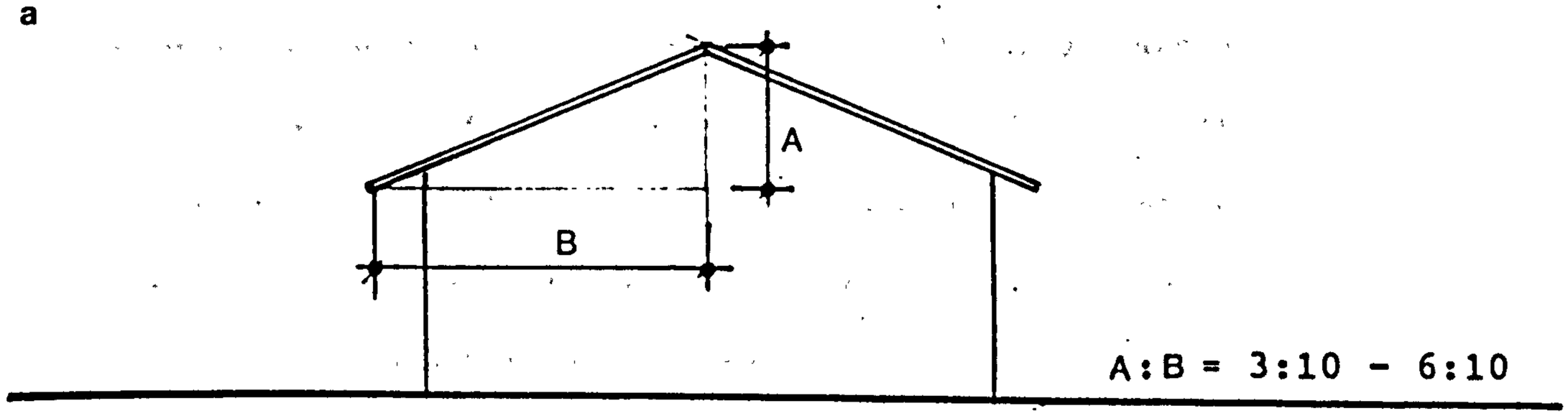
		A = B	B produces A	A conquers B	ideal measurement
K'an	CH		3,12,21		3,12,21,30,39.....
	CW		1,10,19,28,37		1,10,19,28,37,46..
(water)	TH	9	5	8	5,8,9
	TW	6	2	5	2,5,6
K'en	CH	3,4,6,12,13,15	9,18		3,4,6,9,12,13,15..
	CW	5,6,8,14,15,17	2,11		2,5,6,8,11,14,15..
(earth)	TH	3	4	5	3,4,5
	TW	1	2	3	1,2,3
Ch'en	CH			1,7,8,10,16,17	1,7,8,10,16,17....
	CW			1,2,4,10,11,13	1,2,4,10,11,13....
(water)	TH		4	2	2,4
	TW		8	6	6,8
Sun	CH			4,5,7,13,14,16	4,5,7,13,14,16....
	CW			1,3,9,10,12,18	1,3,9,10,12,18....
(wood)	TH		6	4	4,6
	TW		4	2	2,4
Li	CH		4,13	9,18	4,9,13,18,22,27...
	CW		6,15	2,11	2,6,11,15,20,24...
(fire)	TH	2		8	2,8
	TW	8		5	5.8
K'un	CH	6,7,9,15,16,18	3,12		3,6,7,9,12,15,16..
	CW	2,3,5,11,12,14	8,17		2,3,5,8,11,12,14..
(earth)	TH	6	7	8	6,7,8
	TW	3	4	5	3,4,5
Tui	CH	6,15	2,8,9,11,17,18	1,10	1,2,6,8,9,10,11,15
	CW	4,13	6,7,9,15,16,18	8,17	4,6,7,8,9,13,15,16
(metal)	TH	7	9		7,9
	TW	3	5		3,5
Ch'ien	CH	7,16	1,3,9,10,12,18	2,11	1,2,3,7,9,10,11,12
	CW	5,14	1,7,8,10,16,17	9,18	1,5,7,8,9,10,14,16
(metal)	TH	3	5		3,5
	TW	6	8		6,8

CH: chih of the height CW: chih of the width
TH: ts'un of the height TW: ts'un of the width

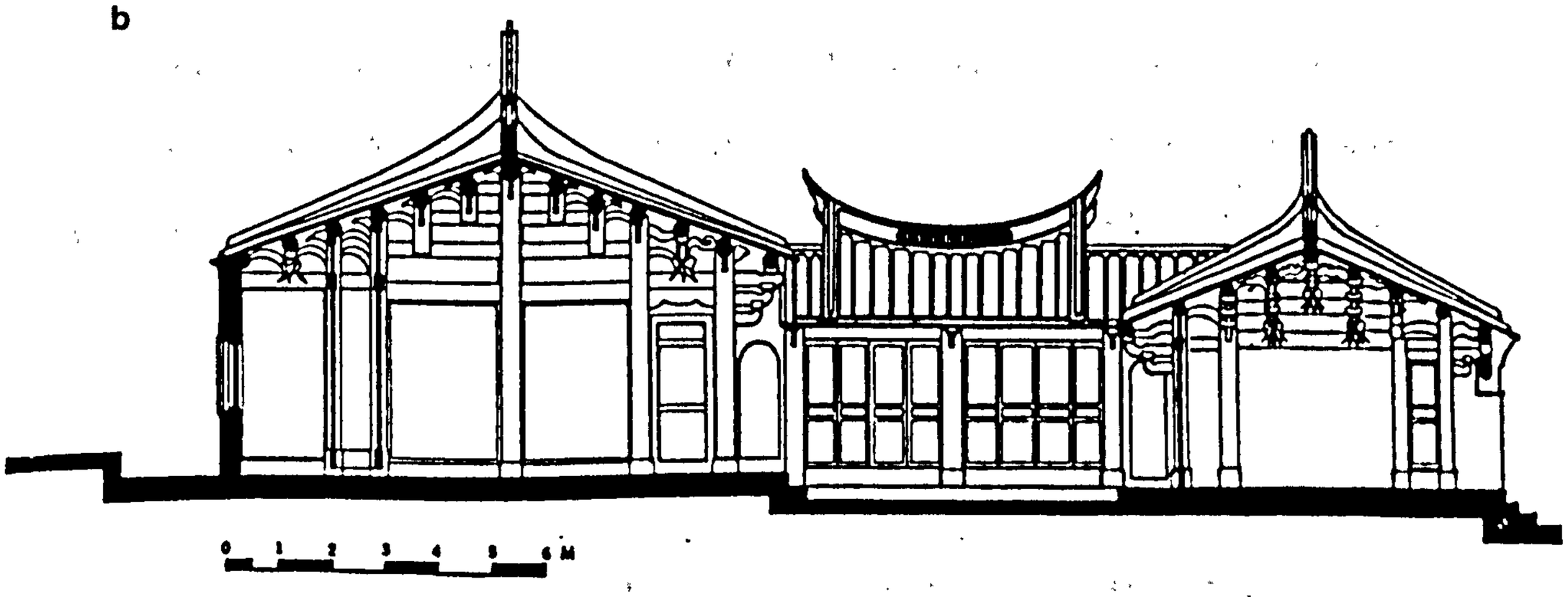
12 (=3+9), (1) while the lucky horizontal chih measurement is 1 and 10 (=1+9). The auspicious vertical ts'un is 5, 8 and 9, while the best horizontal ts'un is 2, 5 and 6.

Diagrams 2-3-18 a & b Standard gradient of the roof
b. (Reed Dillingham, 1971, p 53)

a



b



---

1) In this case, after eliminating the elements which would be conquered by the other, we are left with only one position at which an element produces another - metal produces water, at the flying star wu chü. The chih at wu chü is 3, and as this measurement is impossible as the height of the ancestral hall, we must pass through the the cycle of the nine flying stars to arrive a second time at the position wu chü to come to 12 chih.

In a courtyard house, the correct proportioning of the main building was of vital importance, as it was here that the ancestral hall was located. The Chinese paid special attention to the correct proportioning of three elements of the main building - the height of the ancestral hall, the width and depth of the ancestral hall and the gradient of the roof.

The height of the ancestral hall could be calculated from the verses previously mentioned; the measurement of the height was also used for half the depth of the ancestral hall (1). The gradient of the roof of the main building usually followed a common standard (see Figures 2-3-18 a & b). The ratio of the king post : half the tie beam (a:b) ranged between 3:10 to 6:10; 3:10 to 4:10 were usually used in smaller houses, while 5:10 or 6:10 were used only in large houses or official buildings. In roofs of common houses, the angle of inclination remained constant, while in roofs of more elaborate houses, the degree of inclination increased at every purlin. (See Figures 2-3-19 a,b & c) The number of purlins was usually odd (yang number), as even numbers were believed to be inauspicious (2).

Even the size of the central courtyard followed a standard measurement, the pu (3). Generally, the ideal size of courtyards measured an odd number of pu, reaching from the door of the ancestral hall to the door gate. Even numbered pu was avoided as it was considered inauspicious.

---

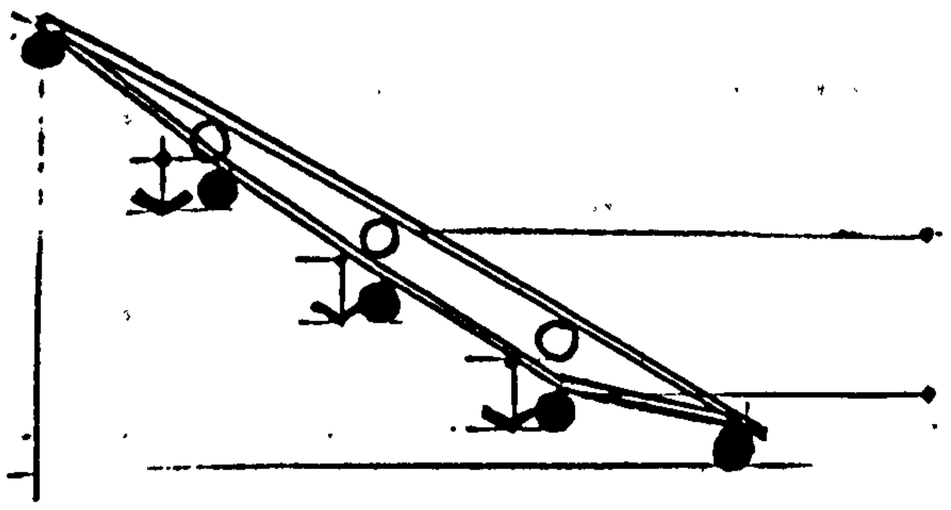
1) In Southern China, only the large houses were flexible enough to be able to follow both the ideal chih and ts'un measurements for the ancestral hall; the smaller dwellings could usually only take the ideal ts'un measurement into consideration.
2) See Fo Yin, Notes on Yin Yang Feng Shui, Vol. 2, p 8, and Yue-Jiann Shyu, "The Study of Chinese Construction Design Principles in Taiwan", p 80-81
3) Each pu is equivalent to 4 chih 5 ts'un (136,35 cm)

Figure 2-3-18 a, b & c

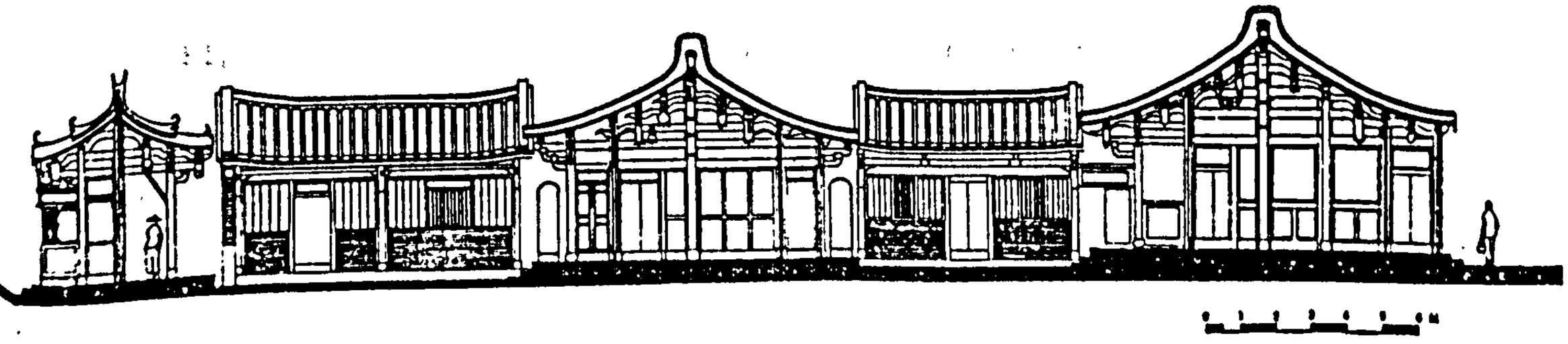
b. The roof of elaborate houses with increased degree of inclination (from Reed Dillingham, "A Survey of Traditional Architecture in Taiwan", p 32)

c. Roof of common houses with fixed degree of inclination (ibid, p 45)

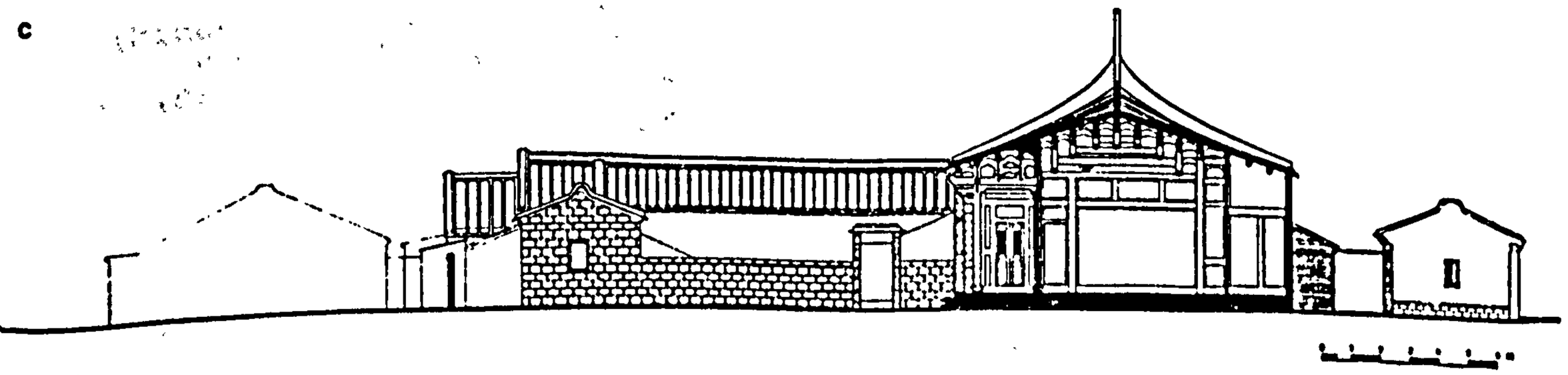
a



b



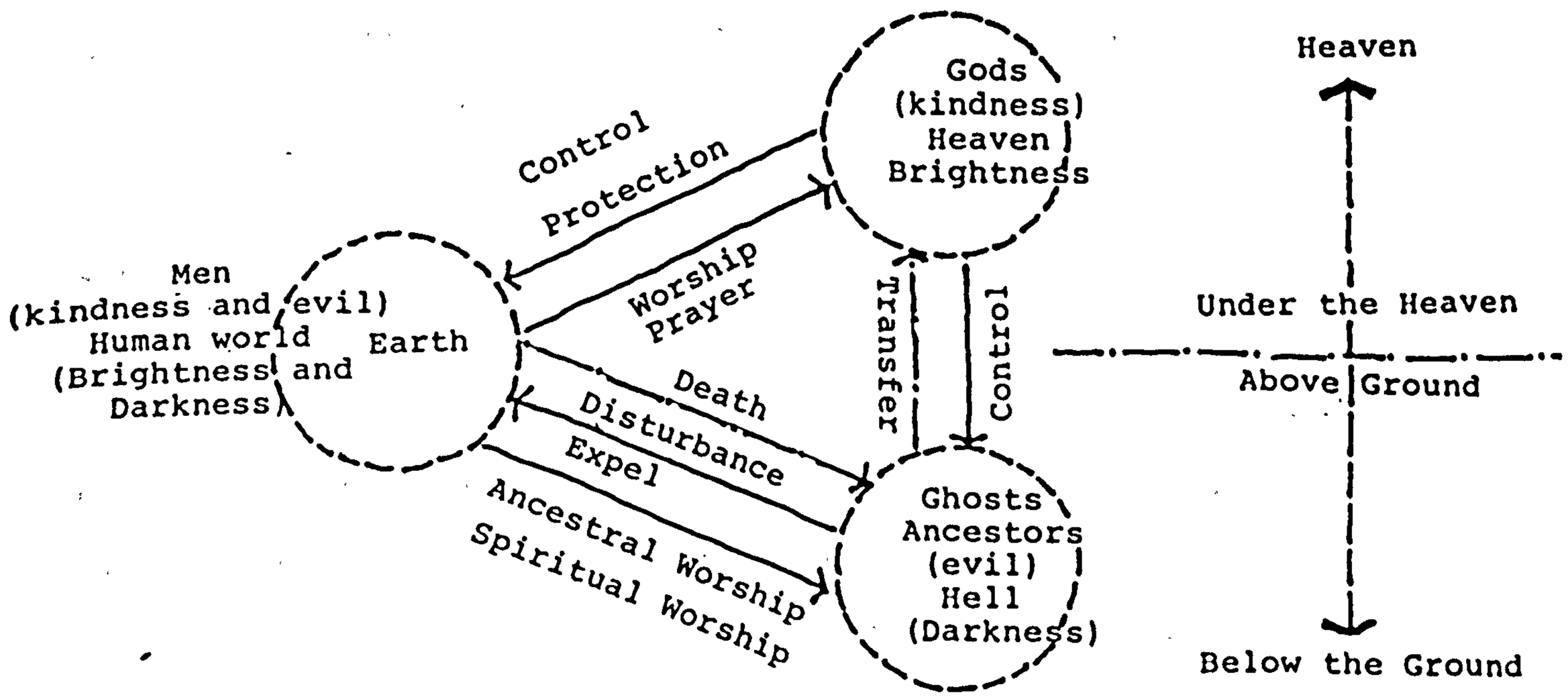
c



2.3.7. Meaning of decorations in Yang Chai

Chinese decorative elements originated out of the deep-rooted wish of the Chinese people to avoid or fend off evil and bring good fortune to their home and family. These wishes derived mainly from Chinese popular belief and popular religion, which was a mixture of the ideas of Confucianism, Buddhism and most importantly, those of Taoism with its complex of spirit worship. It is therefore crucial to first introduce this popular religion in order to understand the multitude of Chinese decorative elements. In the later traditional period (above all in the Ming and Ching Dynasties), popular religion emphasised the division of the world into three parts. The first world was heaven, in which gods resided and controlled the second world, that of human beings. The third world was hell, where ghosts resided. See Figure 2-3-20. In Chinese minds, gods had the power to keep order in man's world, while ghosts were out to disturb this order.

Figure 2-3-20 The Three Worlds (Kwan Hua-San, 1980, p 180)



Hell was considered to be the world of the dead or ghosts, and was one of eternal darkness. Upon death, everyone was tried in the underground court of law according to his past deeds and was sentenced either to live in hell, or if he had led a compassionate past life, to transmigrate to the world of the living. Residents of hell or ghosts were therefore those with a record of evil deeds in their previous life, and were considered to be the cause of all calamity in the living world.

To avoid disturbance of the order in the living world, the Chinese paid sacrifices to the gods and performed rituals to worship and welcome them, borrowing their power to fend off the arrival of ghosts. An annual ceremony is still held in the middle of July (according to the lunar calendar) to pacify potential trouble-making ghosts and to keep them from wishing to leave the world of the dead and entering man's world (1).

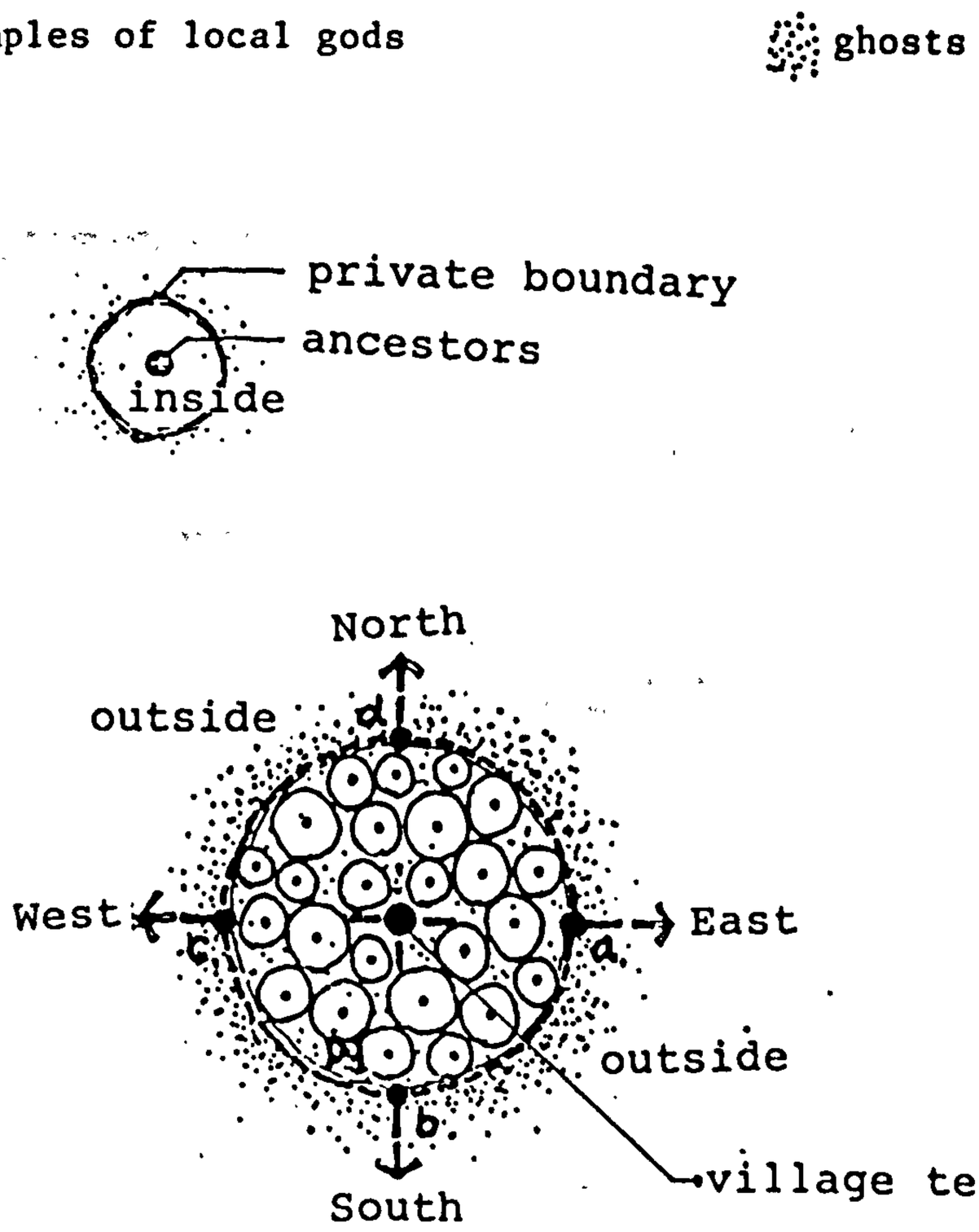
Temples to the local gods were erected at the four sides surrounding the town or village. The temples were placed at the entrances to the town or village and faced outward to ward off ghosts wishing to enter, eg. Mai Ti Village near Kunming, Szechuan Province or Lukang, Taiwan. See Figure 2-3-21. During epidemics and plagues or years of bad harvest, villagers and townspeople worshipped the local gods outside these temples surrounding the village to stop the intrusion of the evil spirits. Should evil spirits or ghosts enter the village, other defensive elements were placed at various points in the village or in people's homes to ward off evil. One was the shih-kan-tang (石敢當), usually a

---

1) See Feuchtwang, "Domestic and Communal Worship in Taiwan", p 124 and Wolf A.P., "Gods, Ghosts and Ancestors", p 176-182, both in Religion and Ritual in Chinese Society, ed. by Wolf A.P., (Stanford: Stanford University Press, 1974)

stone pillar or stone slab with the words shih-kan-tang engraved upon it and a demon's face carved above the characters. Such a slab was also sometimes inserted in the wall and only had the three characters carved on it. It was believed to suppress evil powers and avert danger and must be carved and erected at an auspicious time (1). The shih-kan-tang was usually placed at: 1. entrances to villages; 2. the forking of roads; 3. along river banks and the next to ponds; 4. in front of the main gate of residences.

Figure 2-3-21 Location of the village temples and temples of the four local gods (Kwan Hua-Shan, 1980, p 181)



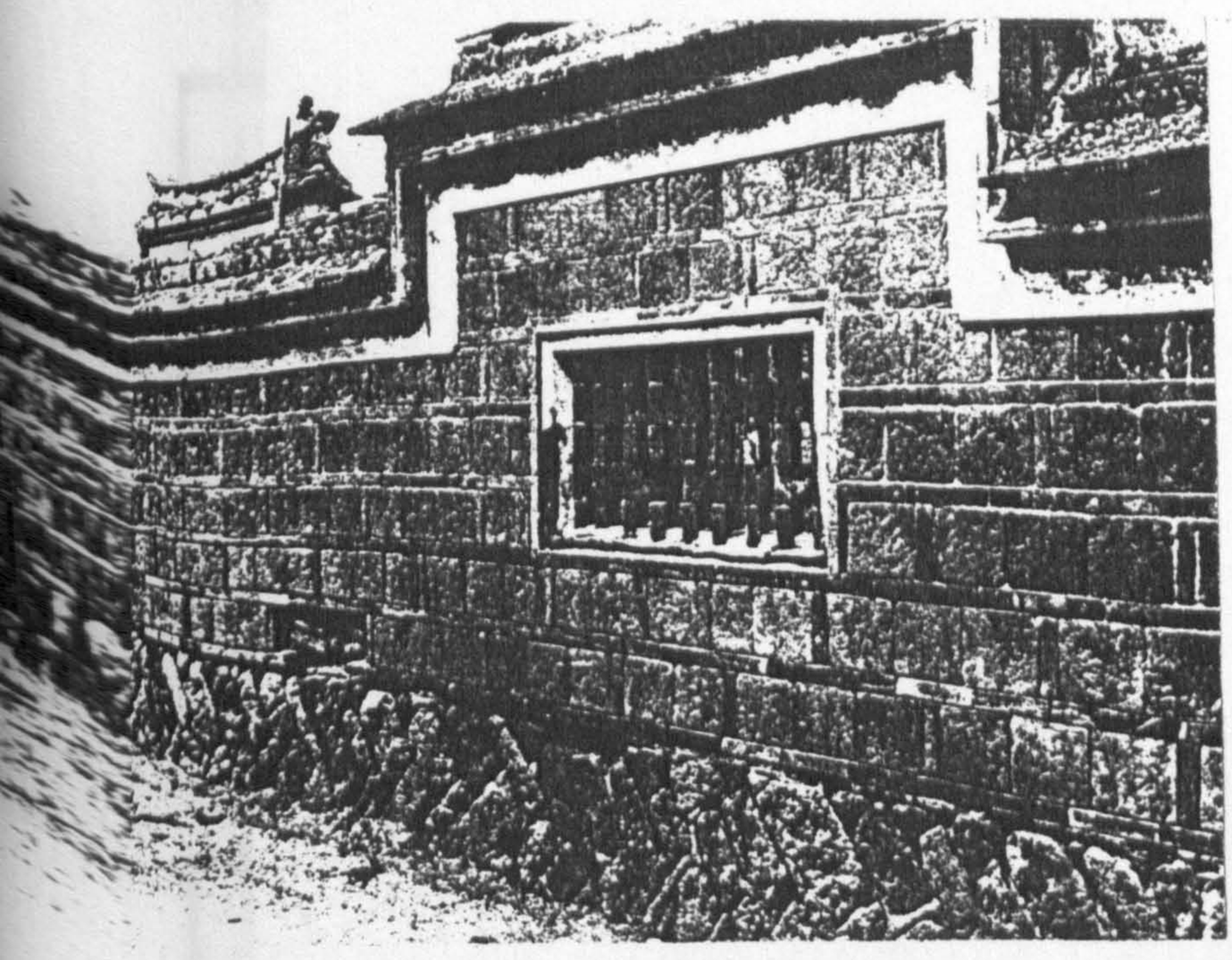
1) See Lao Ta Kang, Feng Shui and the Protective Mirror, (Taipei : Shih Pao, 1985), p 196-197 and Chuta Ito, Peculiarities of Chinese Architecture, p 124

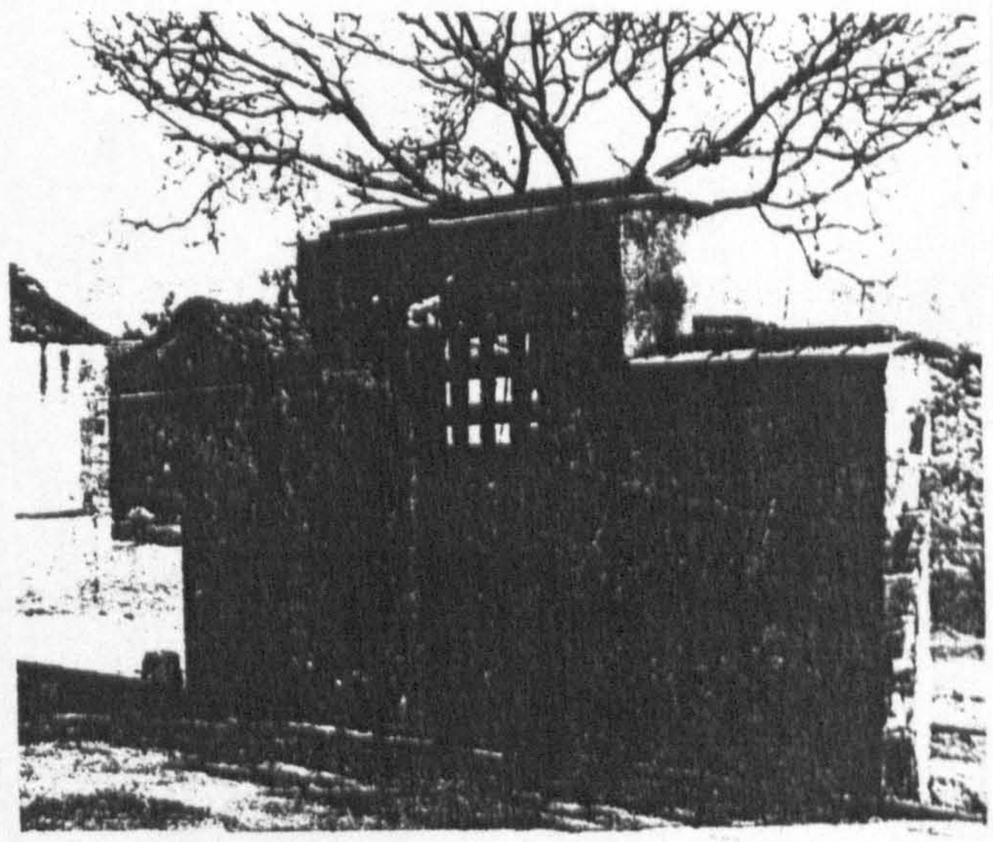
TEXT BOUND INTO

THE SPINE

Upon entering a traditional courtyard house, an architectural element which was commonly found was the brick screen or "spirit wall" in front of or behind the front gate or in the courtyard. In Yang Chai theory, this wall blocked the escape of lively Ch'i from the house and prevented the entrance of evil spirits into the house (1). In houses in northern China, these brick screens could usually be found both in front of the main entrance and behind it, and in practice, the reflecting wall (screen in front of the main gate) was used as a spot to fasten horses and place sedan chairs while the shadow wall (screen behind the main entrance) blocked the view of outsiders into the courtyard house (2). See Figure 2-3-22.

Figure 2-3-22 'Spirit wall' made of brick
(from Lee Chien-Lang, 1978, Plates 157-158)



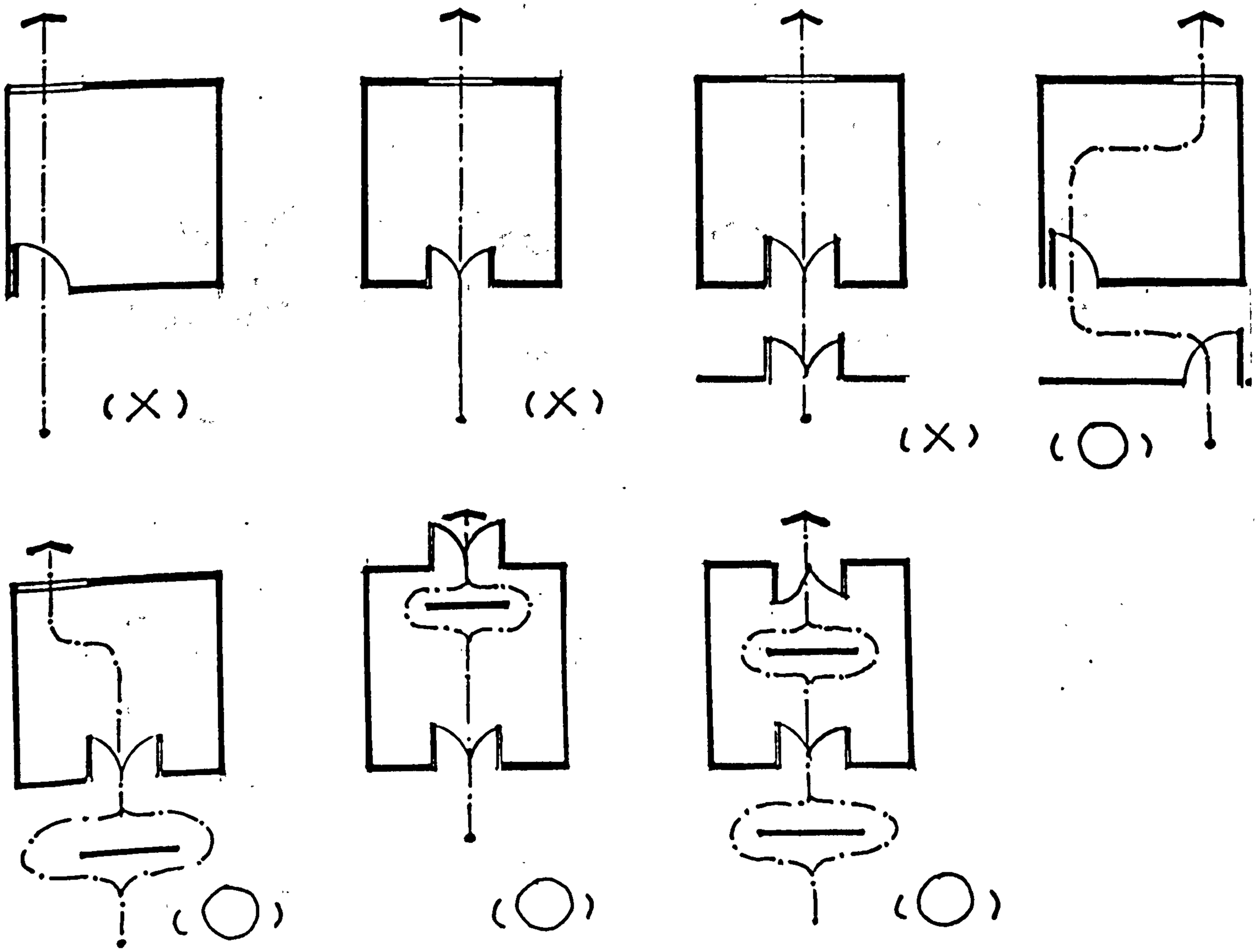


---

1) See Kwan Hua-San, "Traditional Houses and Folk Concepts in Taiwan", in Bulletin of the Institute of Ethnology, Academia Sinica, No. 49, 1980, p 183
2) Liu Tun-Tseng, Chung Kuo Chu Chai K'ai Shuo (General Account of the Chinese House), (reprinted in Taipei: Ming Wen, 1981), p 31

Ideally, the existence of the reflecting and shadow walls led to the near impossibility of a direct entry into the house; the winding path of entry matched the desire of the Chinese to avoid straight paths of entry, as they believed that spirits could only walk on straight roads and not turn. Likewise, doors and windows were not to be placed in a straight line; although another reason for this is to avoid the easy escape of lively Ch'i from the house. Figures 2-3-23 show various positioning of doors, windows and shadow walls, three of which are considered unlucky and four auspicious.

Figures 2-3-23 Different arrangements of doors, windows and spirit wall



Elements inside homes which were used to ward off evil usually took the form of various decorations. This began at the front gate, on which were painted images of door gods. Door gods always appeared in pairs, one on each door leaf (See Figure 2-3-25). Different dynasties had different door gods; some were legendary while others were images of historical heroes (see Appendix 4).

Other decorations placed on or near doors and doorways with the intention of warding off evil can be found in the form of :

1. Figures of yin and yang or the eight trigrams. These were usually placed above the doorway leading to the ancestral hall (see Figure 2-3-27 c.);

Figure 2-3-25 Door gods appear in pairs
(Chuan Po-Ho, Sinorama, March 1986, p 108)

2. Plaques of the sun and moon or animal representations thereof. Figures which represent the sun are the three-legged golden crow (1) or Hsi Ho (羲和), the sun god (2) (see Figure 2-3-27 d.). The moon is related to the (lunar) toad and Chang Hsi (常羲) (3) (See Figure 2-3-27 e.). The sun and moon were chosen as the Chinese believed their brightness and power could counteract all evil.

3. Plaques in the shape of a tiger's or lion's head, both guardian animals. The character (王) or king was engraved on the forehead of the animal, while its mouth held a sword. This plaque was commonly made of wood, stone or bronze, and was usually hung on the front gate when: a. the house faced the corner of another house, as from the viewpoint of Yang Chai theory, facing the corner of another house led evil into one's own home; b. the house faced a straight road leading away from the house. (See Figures 2-3-28 a & b and Figure 2-3-28 c.)

4. A miniature broom made of cord which symbolised the cleansing of the interiors of the house from all filth, and prevented outside dirt from entering the house. This decoration can also be found on doors in Japan and Cambodia (4).

5. A (concave) mirror, also known as white tiger mirror, which protects the house from outside disturbances. The Chinese believed that spirits would be frightened away by their own reflection in the mirror.

---

1) Ancient Chinese believed that the sun flew across the sky from east to west everyday.
2) Hsi Ho was a wife, half human and half dragon, of the Supreme Ti. Legend has it that the she bore ten suns, nine of which were shot down by Hou Yi to save the world from conflagration. See Mao Tun, 神話研究 (Study of Myths), (Tientsin: Pai Hua Wen I Publ. Co., 1981), p 215
3) Chang Hsi, another wife of the Supreme Ti, gave birth to the moon. See Mao Tun, ibid
4) See Li Chin-Yün, "On the Chinese New Year" in New Treatise on Chinese Culture, Vol. on Religion and Customs, p 543

6. Couplets containing auspicious verses or posters containing the five colours blue, yellow, red, white and black, pasted on doors or doorposts (usually during the lunar new year) (1). (See Figure 2-3-29). This custom began in the North Sung Dynasty (A.D. 960-1127).

7. Stone or bronze statues of lions or other ferocious animals which symbolised justice and kindness. These were placed next to doors of houses of high officials and were avoided by criminals and evil beings. (See Figure 2-3-30 a.)

8. In southern China, screens in the shape of swords and knives were placed in front of the front door of houses of officials to ward off evil spirits. (See Figure 2-3-30 b.)

9. Red or black talismanic writings on yellow peachwood paper by Taoist monks, also known as peachwood talisman. Ever since the Chou Dynasty, the Chinese believed that peachwood could ward off evil, and in later dynasties paper made of peachwood replaced peachwood boards to bring peace to the home. (See Figure 2-3-30 c.)

Despite the variety of roofs which existed in Chinese architecture, their decorations could always be found on either the ridge or eaves of the roof. Apart from the wish to avoid evil, the Chinese also used roof ornamentations which could prevent fires through their association. This often resulted in the employment of aquatic animals such as the seadragon, sea-horse, various types of fish and plants like seaweed. (See Figure 2-3-30 d.)

Roof decorations were categorised into groups which were specific to their type of buildings. The roof ridge of the Emperor's residence, i.e. the palace, was decorated with shapes of the sun, the moon, pagodas and ceramic figures of generals, while at both

---

1) ibid, 544

ends of the ridge we find either dragon heads or fish. (See Figure 2-3-30 e.) Along the slope of the roof were placed "walking animals". Their number must be odd, and they must be placed according to a certain order: dragon, phoenix, lion, heavenly horse, seahorse, wild horse, fish, hsieh dog (1) and heavenly bull. (See Figure 2-3-31 a.) If these nine animals did not all fit onto the slope of the roof, those at the end of the list were either omitted or placed on the roof of a side hall of the palace.

Residences of officers also had their special roof ridge ornamentations. They were the three gods of Fu, Lu and Shou (福 祿 壽) (happiness, wealth and longevity), pagodas and eight trigrams, all of which were placed at the centre of the roof ridge, while on both sides of the ridge we find dragons and phoenixes. The slope of the roof was rarely adorned.

Common residences could not be decorated with the above mentioned figures. Commoners were limited to four roof decorations; they were: a bowl (representing an abundance of food), bo (a Buddhist worship implement which could ward off evil) and an earthen figure of the warrior god Huang Fei Hu (黃 飛 虎), equipped with a bow and arrow riding a tiger (representing a guardian of the inhabitants) and a pavilion, used as a chimney (See Figure 2-3-31 b.)(2).

Another part of Chinese houses which bore various decorations was the outermost side walls, known as feng huo shan ch'iang (封火山牆) or the "fire preventing mountain walls". These mountain walls were usually constructed of fire-resistant materials such as brick,

---

1) A mythical animal which knew the difference between right or wrong
2) See Lin Wei-Yin, Principles of Wooden Structure in the Ching Dynasty, p 42

stone or earth, and could generally be categorised into two groups. In Chekiang and Anhui the ma-tou style was commonly found; the top of the mountain wall was shaped like a staircase (See Figure 2-3-32 a. and Figure 2-3-32 b.), while in Canton and Fukien the top of the mountain walls was usually curved, the shape of which was subdivided into five basic forms. These five forms corresponded to the five elemental mountain shapes (See Part 3, Chapter 3, p 7, and Figures 2-3-33 a,b,c and Figure 2-3-33 d.). These different shapes of mountain walls resulted in the distinctive skylines characteristic to the various regions in China.

Decorations on the side walls usually revolved around the theme "fish" or "jade" (phonetically corresponding to abundance), (See Figure 2-3-33 e.) surrounded by clouds, ribbons and plants, either made of carved wood or ceramic. (See Figures 2-3-34 a.) Houses of scholars were adorned with a carved scroll or books on the side walls. (See Figures 2-3-34 b.)

Inside the ancestral hall, talismanic writings on yellow paper were usually hung at less visible sections on the main central beam, as it would be unlucky for them to be seen by outsiders. Other decorative elements on the main beam included carvings or paintings of sea plants, various types of fish, etc., but images of boats were unacceptable, as they would carry away the family possessions (1). (See Figure 2-3-35)

Ornamentations in the house itself belonged to one of two groups - auspicious motifs and patterns or auspicious words and characters, either painted, written or carved. (See Figures 2-3-36) The motifs

---

1) See Tan Chang Jui, "Folk Beliefs and Witchcraft" in Hai Wai Hsüeh Jen, No. 135, 1983

were chosen either on the basis of their phonetic association or according to their traditional suggestions. Motifs can generally be categorised into three groups; those belonging to the animal kingdom, the plant kingdom and (natural) objects or phenomena found in daily life. The most commonly used motifs according these three groups are explained in Appendix 5.

2.3.8. Example of the use of Yang Chai Theory

The Lin Family compounds in Panchiao, Taiwan, is one of the few remaining courtyard houses dating from the Ching Dynasty. I have chosen this compound as my example as there exist ample records on the original inhabitants of the house which can help illustrate the application of Yang Chai Theory in the construction of this house.

2.3.8.1. Site and Orientation

This compound is located about 500 metres to the west of the present day train station of Panchiao. The two houses and the grounds cover an area of 52000 sq. metres, about half the area of 19th century Panchiao. Construction of the compound began in 1847 and ended in 1893. The compound includes 1. the old mansion (completed in 1853), 2. new mansion (completed around 1888) and the gardens (completed in 1893) (1). See Diagrams 2-3-37 a-d.

The Lin family originated from Fukien, China. The father of the owners of the house had been a government official who gave up his job and became a successful merchant. The family first moved to

---

1) See Studio of Environmental Planning and Design, National Taiwan University, Study and Restoration of the Lin Family Gardens in Panchiao, pp 26-29

Hsingchuang in Taiwan, but was forced to move to Panchiao to avoid clashes with other clans from Fukien (1).

With the aid of Feng Shui finders, the sons Kuo-Hua and Kuo-Fang supervised the planning and construction of the old mansion, beginning with the selection of the site (2). The chosen site was surrounded by the three mountains Kuanyin, Ta-tuen and Chi-hsin, and the stream Nan-Tse flowed in front of the site. This site corresponds to an ideal site as suggested in the Ten Books of Yang Chai. (See Appendix 2, Type II, N).

Because of the spatial limitations of this ideal site, the old mansion was orientated towards the Northwest. However, the front gate was not situated in the Northwest. The reason for this can be explained by the fact that both Lin brothers, born in 1802 and 1820, (3) shared the same Fu Yuan Li. According to Yang Chai Theory, Northwest belongs to the trigram Chien, whose interaction with Li would result in the effect P'o-chün (broken army), considered most inauspicious. The front entrance was therefore moved to the two sides on the Northeast (resulting in the auspicious effect Chü-men) and Southwest (with the effect auspicius effect Wu-chü) to avoid malicious influences. See Diagram 2-3-37 (old mansion).

Another point of interest is that the sewerage system underneath the house consisted of sewage pipes placed in an octagonal shape,

---

1) See Han Pao-Teh & Hung Wen-Hsiung, Pan-Chiao Lin Family Compound The Survey, Study and Restoration, p 8
2) See Studio of Environmental Planning and Design, National Taiwan University, Study and Restoration of the Lin Family Gardens in Panchiao, p 38
3) See Studio of Environmental Planning and Design, National Taiwan University, Study and Restoration of the Lin Family Gardens in Panchiao, p 4

Figure 2-3-37 a Lin family compound in Panchiao (present plan)
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 96)

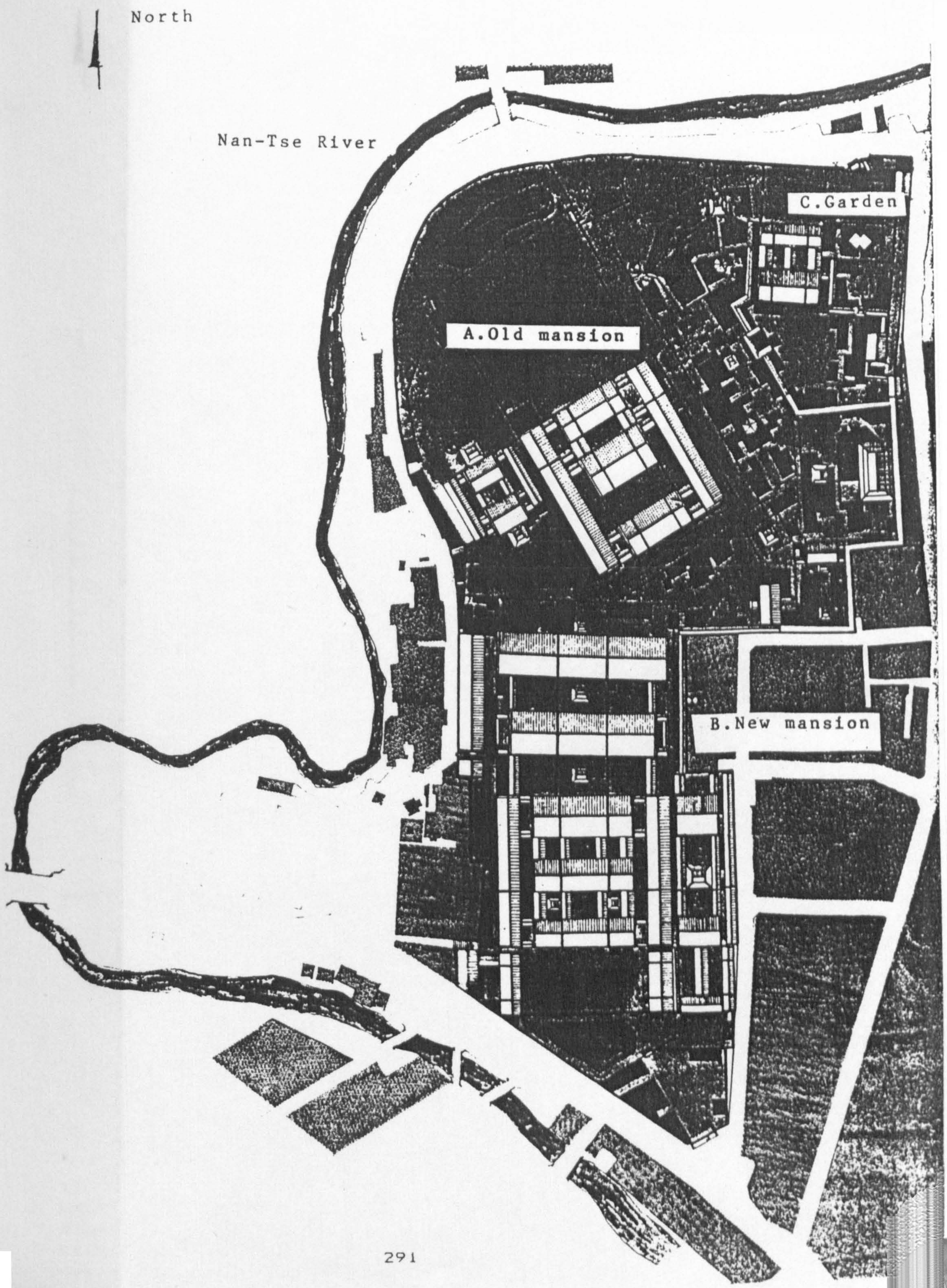


Figure 2-3-37 a Lin family compound in Panchiao (isometric)
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 30)

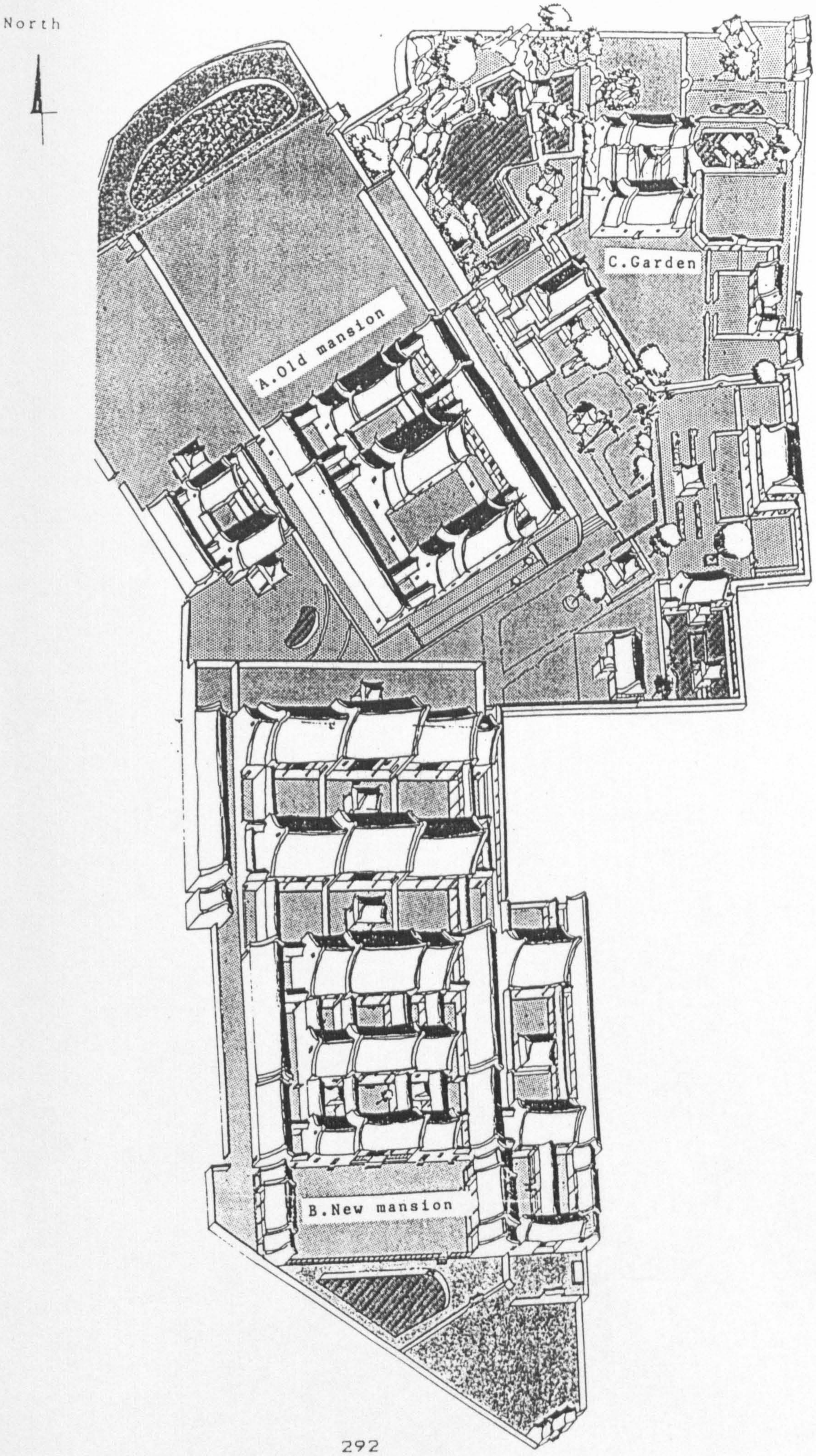
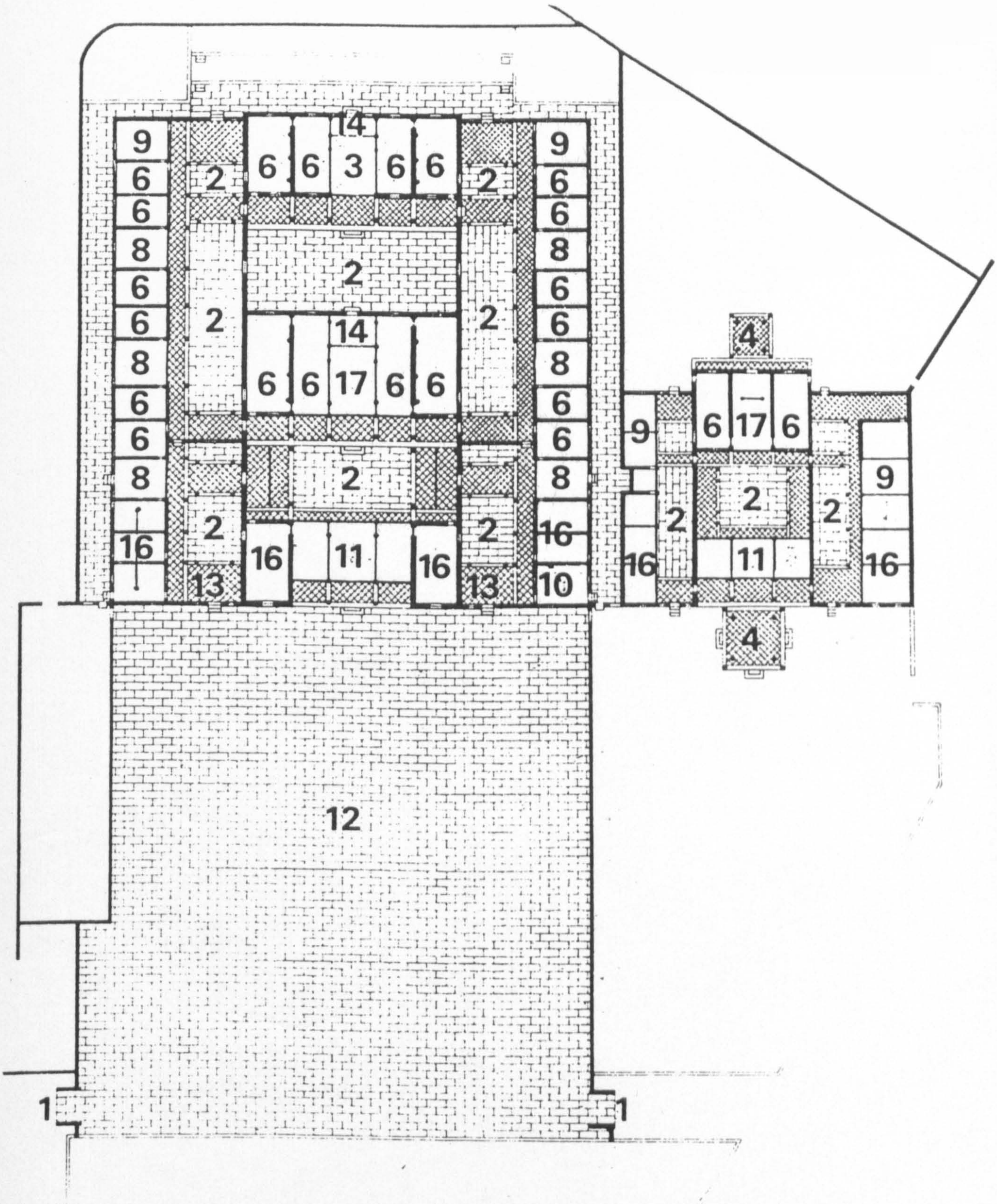


Figure 2-3-37 b Lin family compound in Panchiao (old mansion)
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 51)



1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 4. Kiosk 5. Room for collection rice of rent 6. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room 15. Guest room 16. Servant's room (long term workers, doorman, tailor) 17. Sitting room

Figure 2-3-37 c Lin family compound in Panchiao (new mansion)
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 52)

1. Front door 2. Heavenly well or small courtyard 3. Ancestral hall 4. Kiosk 5. Room for collection rice of rent 6. Bedroom 8. Side hall 9. Storage 10. Kitchen 11. Door hall 12. Front yard 13. Side door hall 14. Back hall or back room 15. Guest room 16. Servant's room (long term workers, doorman, tailor) 17. Sitting room 18. Rear yard 19. Fish pond

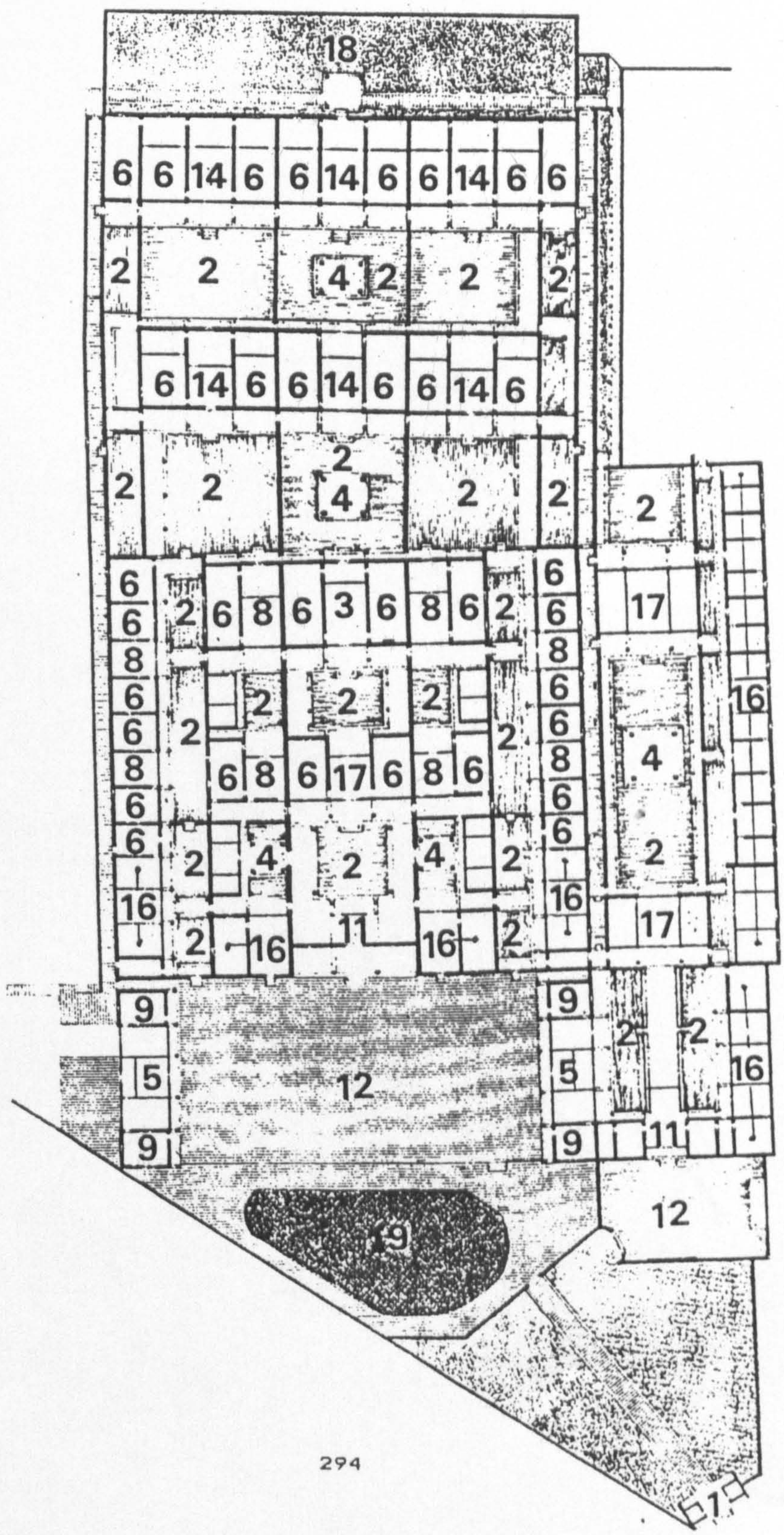


Figure 2-3-37 d　　Lin family compound in Panchiao (garden)
(from Studio of environmental planning and design, National Taiwan University, 1981, p 114)

A. 汲古書屋 Chi Ku Shu House B. 方鑑齋 Fang Chien Chai C. 來青閣 Lai Ching Pavilion D. 月波水榭 Yueh Po Shui Pavilion E. 定靜堂 Ting Ching Hall F. 榕蔭大池 Jung Yin Pond G. 觀稼樓 Kuan Chia Pavilion H. 梅花廚 Mei Hua Kiosk I. 橫虹臥月 Heng Hung Wo Yueh

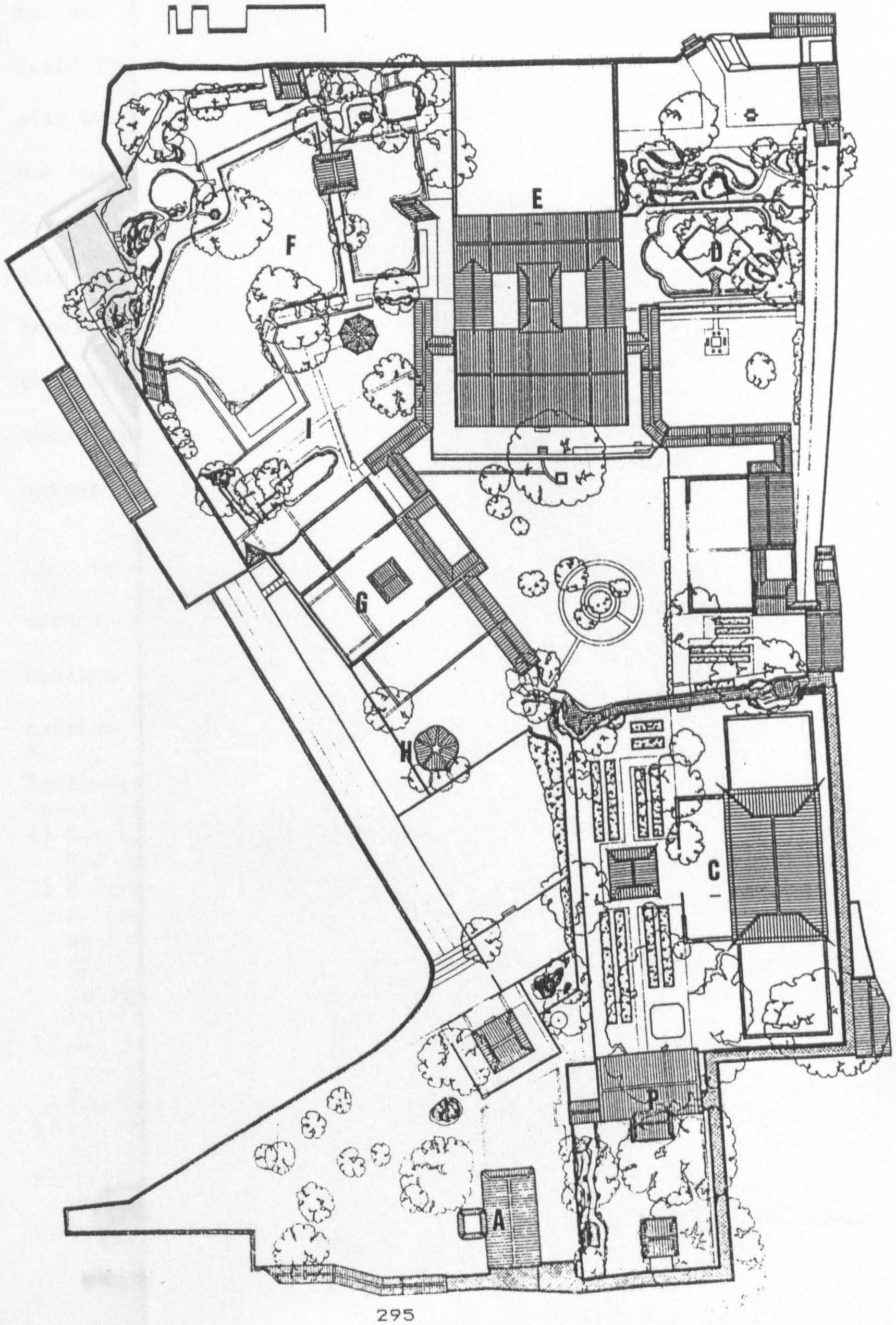
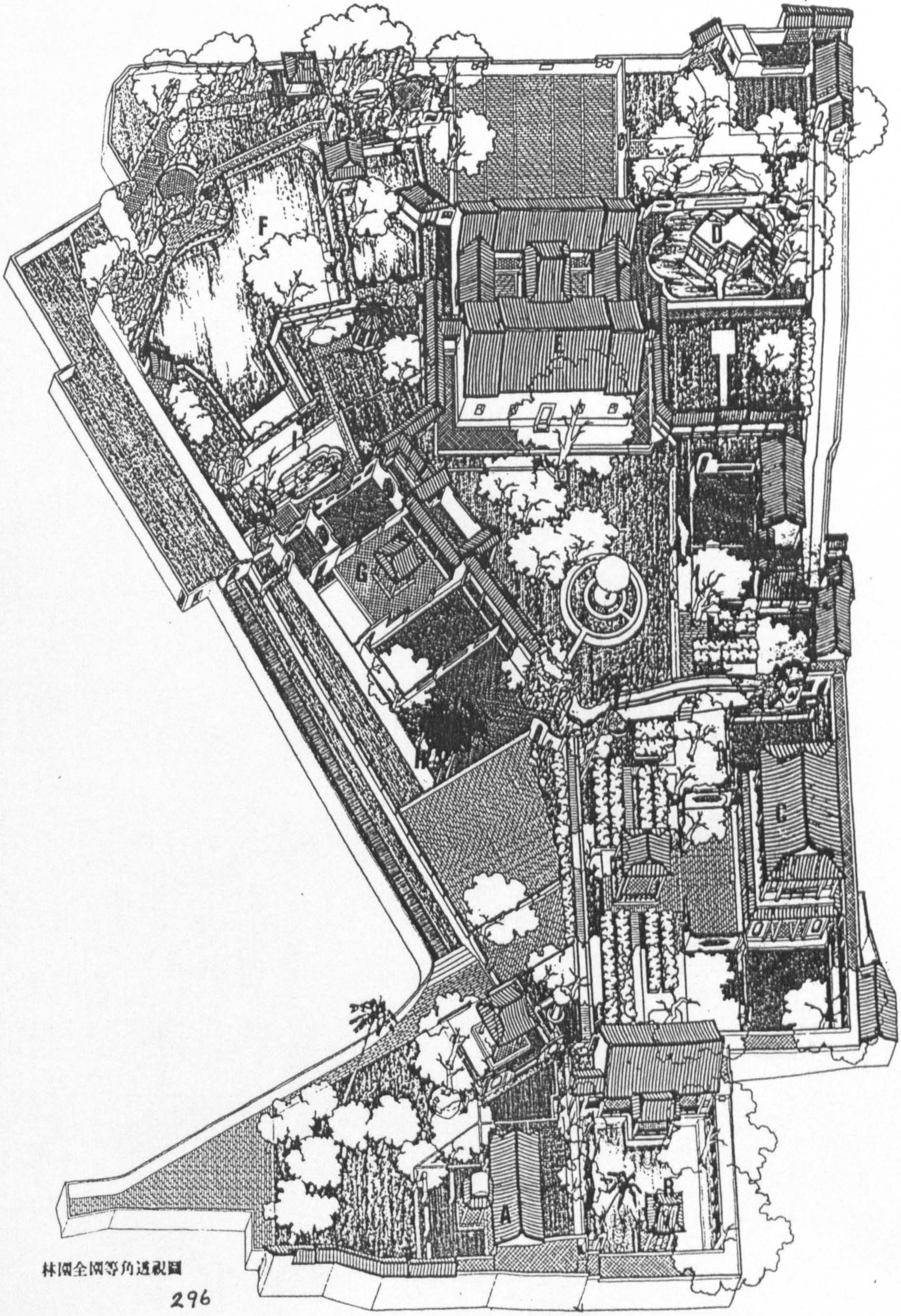


Figure 2-3-37 d Lin family compound in Panchiao (garden)
(from Studio of environmental planning and design,
National Taiwan University, 1981, p 124)

A.汲古書屋 Chi Ku Shu House B.方鑑齋 Fang Chien Chai C.來青閣 Lai Ching Pavilion D. 月波水榭 Yueh Po Shui Pavilion E.定靜堂 Ting Ching Hall F. 榕蔭大池 Jung Yin Pond G.觀稼樓 Kuan Chia Pavilion H. 梅花亭 Mei Hua Kiosk I.橫虹臥月 Heng Hung Wo Yueh



林園全圖等角透視圖

representing the eight trigrams (1). It was believed that by building the house above the eight trigrams, the inhabitants would enjoy peace and prosperity (2).

After the Lin family had resided in the old mansion for 20 years, a second mansion was begun by Lin Wei-Yuan, the second son of Lin Kuo-Hua, to accomodate the extended joint family. He wanted to build the new mansion next to the old one, so that a temple on the site was removed to make place for the new mansion. Another temple was built at a different site to replace the old (3). One reason for the removal of the temple was that it occupied an auspicious site (4), from which the inhabitants of the new mansion would benefit. A surviving descendant of the Lin family has another practical explanation: a previously used site was chosen because they could be sure that there would be no problem of underground seepage, something they could not be sure of at another site (5).

Lin Wei-Yuan had the same Fu Yuan as both his father and uncle, having been born in the year 1838. As both the directions South and Southeast were auspicious for people with the Fu Yuan Li, the new mansion faced South while its front entrance was located in the Southeast, possibly to avoid the direct flow of Ch'i (6) from the

---

1) See Han Pao-Teh & Hung Wen-Hsiung, Pan-Chiao Lin Family Compound The Survey, Study and Restoration, p 40
2) A famous surviving craftsman in Taiwan, Shi Shui-Lung, had built a house in Chutang, Hsinchu, for the Chan Family in the same manner. See Shyu Yue-Jiann, The Study of Standards in Chinese Building Construction in Taiwan, unpublished Masters Thesis, Taiwan, National Chengkung University, 1980, p 15
3) See Studio of Environmental Planning and Design, National Taiwan University, Study and Restoration of the Lin Family Gardens in Panchiao, p 29
4) See Taipei Documentation Center, 林本源庭園建築史料 History of the Garden and Architecture of Lin Pen Yuan
5) See Han Pao-Teh & Hung Wen-Hsiung, Pan-Chiao Lin Family Compound The Survey, Study and Restoration, p 13
6) Also known as the dark arrow of Ch'i.

South which was considered harmful. (See Appendix 2, Type II, J).

In front of both the old and the new mansions was a pool of water, also named "pool of prosperity" (福池). Apart from their practical uses, this arrangement corresponds to the ideal site as shown in Appendix 2, Type II, L. (1)

2.3.8.2. Ideal measurements applied in the house

According to historical documents, the layout of the two mansions was planned by two scholar friends of the family, Hsieh Kuan-Chiao and Lü Shih-I, while exact measurements of the doors and windows were taken from indications on the door rule by the craftsmen (2).

In both mansions, the width of the ancestral hall (including the two side rooms of the main building) was equivalent to the depth (measured from the front to back steps, including the corridors), while the height was around half the depth, fulfilling the requirements for the correct proportioning (3). The number of purlins in the old mansion was 15 and in the new mansion 17, both of which are odd and therefore auspicious numbers. The roof on the main building in the old mansion had an increased degree of inclination, with the ratio of a:b ranging from 3:10 to 5:10. (See Diagram 2-3-38 a). The roof on the main building in the new mansion had a constant angle of inclination, with the ratio of a:b being 4:10. (See Diagram 2-3-38 b).

---

1) See Han Pao-Teh & Hung Wen-Hsiung, Pan-Chiao Lin Family Compound The Survey, Study and Restoration, p 28
2) See Han Pao-Teh & Hung Wen-Hsiung, Pan-Chiao Lin Family Compound The Survey, Study and Restoration, p 40; and Studio of Environmental Planning and Design, National Taiwan University, Study and Restoration of the Lin Family Gardens in Panchiao, p 37-39
3) See Han Pao-Teh & Hung Wen-Hsiung, Pan-Chiao Lin Family Compound The Survey, Study and Restoration, p 67

Studies on the Lin Family compound have shown the proportions of spaces in the old mansion to be seemingly harmonious (1), (See Diagram 2-3-39 a) while the spaces in the new mansion appeared inexplicably large. The buildings on the central axis in the new compound were more than one metre taller than those of the old compound, with the highest rooms (in the third and fifth chin) being at least 6 metres and accordingly dark. (See Diagram 2-3-39 b new mansion). This has been a main point for which the researchers have found no explanation (2).

However, I find that this point can be explained from the viewpoints prevalent in Yang Chai Theory. The old mansion, which faced Northwest, belonged to the trigram Ch'ien. According to the chart of ideal measurements of the ancestral hall for the trigram Ch'ien (See Section 3.3.5.2.), the ideal chih of the height could be 1, 2, 3, 7, 9, 10, 11, 12, 16, 18; while the ideal chih of the width could be 1, 5, 7, 8, 9, 10, 14, 16, 17, 18. The ideal ts'un of the height could be 3 or 5, and the ideal ts'un of the width 6 or 8. This meant that the craftsmen had more possibilities in the choice of height and width.

However, as the trigram to which the orientation of the new mansion belonged was K'an, the ideal chih of the height could only be 3, 12 or 21 (equivalent to 91 cm, 3.63 m and 6.36 m) and the ideal chih of the width 10, 19, 28, 37, and 46 (3.03 m, 5.76 m, 8.48 m, 11.21 m and 13.93 m). The ideal ts'un of the height was 5, 8 or 9 and the ideal ts'un of the width 2, 5 or 6. This meant that the height of the ancestral hall was limited to 21 chih (as the other two measurements would have been too low), hence the actual height of over

---

1) ibid, p 62
2) ibid, pp 55-56

6.36 m, which was much taller than other buildings commonly found (1). As the width of the ancestral hall (including the ear rooms) was normally around twice the height, the one in new mansion measured 46 chih, nearly 14 m.

The different groups of motifs and patterns commonly used as decorations can all be found in the Lin Family Compound. The specific decorations which appear are:

Animal motifs - dragon, lion, bat

Plant motifs - peach, bamboos, calabash, plum blossom

Motifs based on geometrical forms or objects found in daily life - circle, eight trigrams (octagonal shape), 卍 , vase, fan, coins, clouds, jade, scrolls, Japonicus.

Some of the decorations found in the Lin Family compound are illustrated in Appendix 6, while the meaning of these decorations are explained in Appendix 5.

---

1) Normally the height of the ancestral hall in a house measured only 16-18 chih (4.84 m - 5.45 m). See See Shyu Yue-Jiann, The Study of Standards in Chinese Building Construction in Taiwan, p 32-33

Figure 2-3-38 a The section of central buildings of old mansion
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 64)

Section A-A'

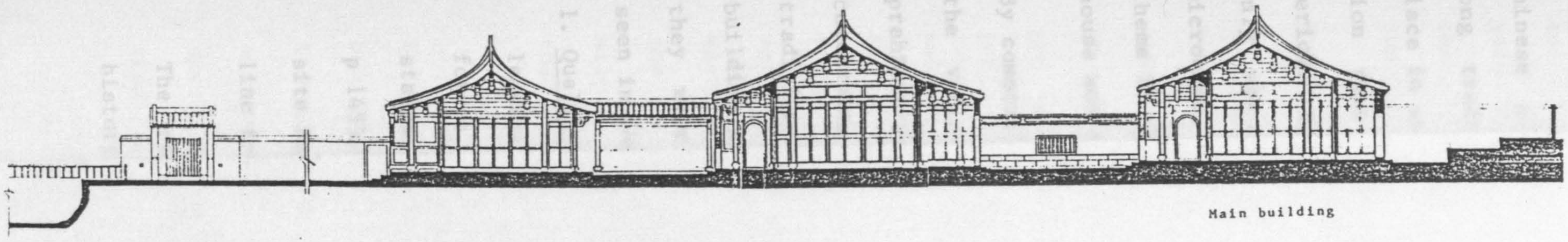


Figure 2-3-38 b The section of central buildings of new mansion
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 64)

Section B-B'

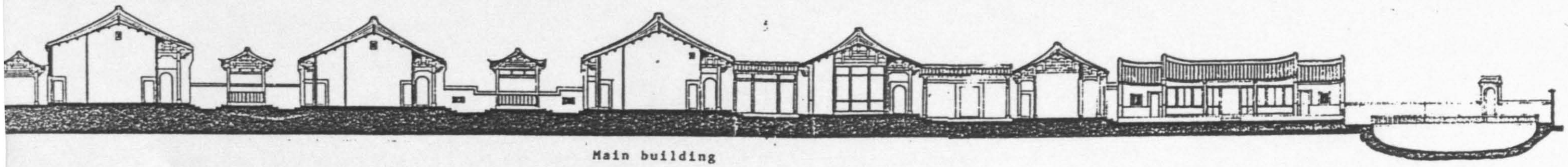


Figure 2-3-39 a A propotional plan arrangement of old mansion
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 60)

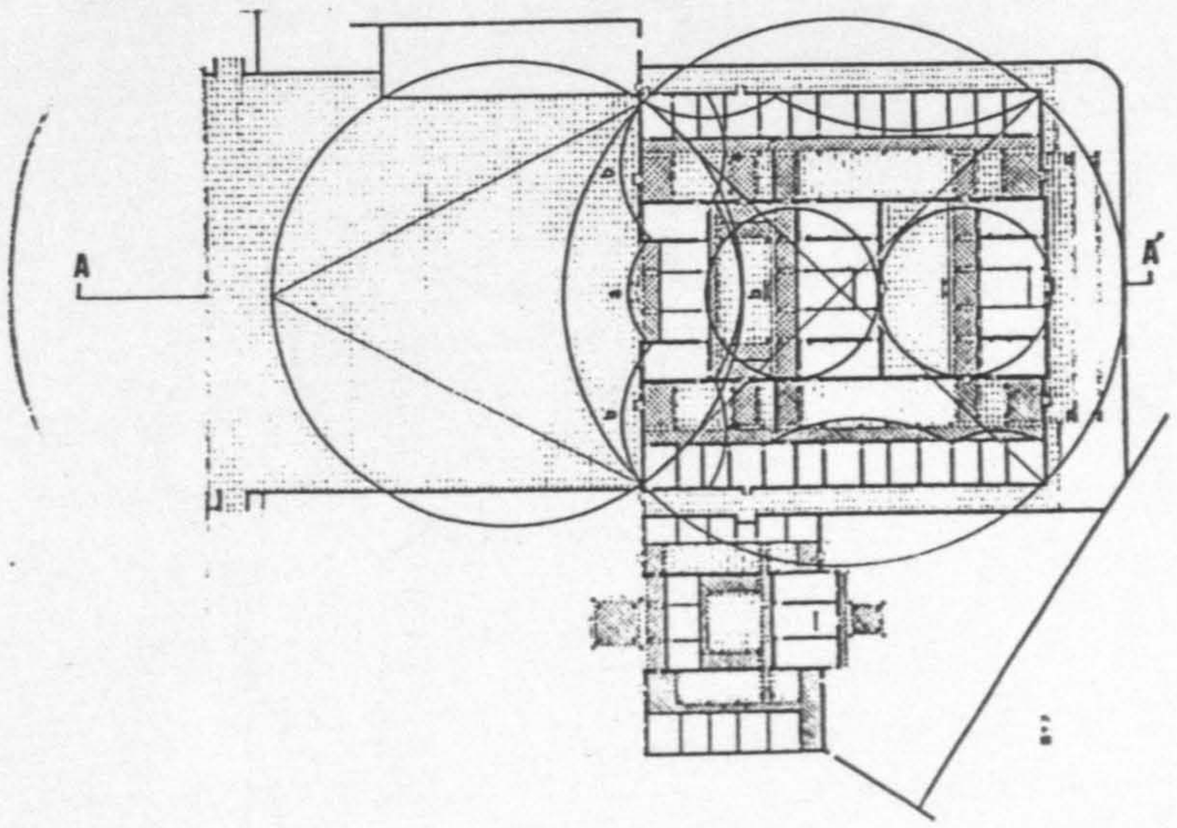
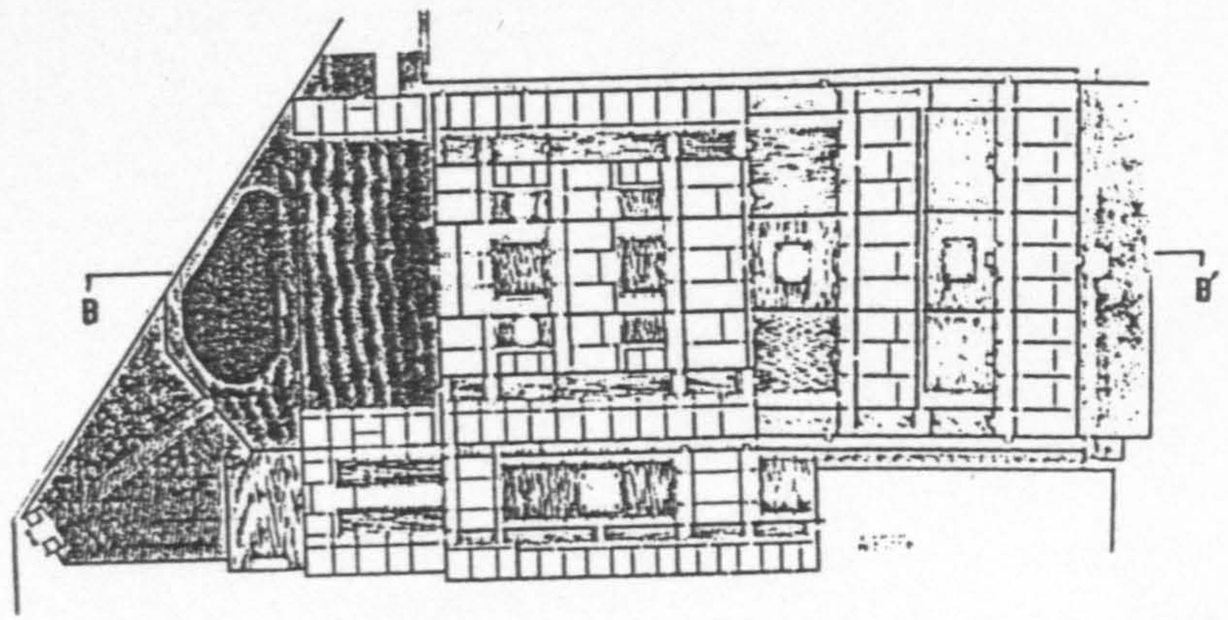


Figure 2-3-39 b An unpropotional spatial arrangement of new mansion
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 54)



Conclusion and Discussion

From the three chapters in Part 3, we can see that the emphasis the Chinese placed on the ideal residential environment has enjoyed a long tradition. In prehistoric times, the residence was also a place in which one could communicate with the gods, on the condition that it had previously been consecrated. In the traditional period, the emphasis had moved to the cosmicisation of houses: not only was the house a place of worship, it was also regarded as a microcosm, a reflection of the cosmos and its order. Thus, the main theme in Chinese building tradition became the harmony between man, house and nature.

By comparing the different periods of Chinese history, we find that the various aspects of the symbol system related to houses in the prehistoric period found their parallels in the symbol systems concerning houses both during the formation of states and in the traditional period. Although certain important steps in the house building process of each period may have varied in their procedure, they were undertaken to achieve the same objective. They can be seen in the following comparison:

1. Quality and location of a site : In prehistoric times, the tribe leaders performed divinations and sought omens in their search for a residential site (see p 134); during the formation of states, this task was taken over by ritualists and diviners (see p 145). In the traditional period, an ideal model of residential site based on Yang Chai Theory was developed and became a guideline for a desirable living environment.

The common objective during these different stages of Chinese history was to place the residence on an auspicious site to

avoid future calamity, and at least certainly during the traditional period, there was also the strong desire to bring luck and fortune to posterity. In the first two periods, the will of gods dominated the decision, while in the traditional period, the guidelines were developed by the people themselves through the Chinese view of nature.

2. Orientation of a building : In prehistoric times, the common dwellings were placed in concentric circles facing the centre of the tribe, the large house (see p 138). During the formation of states, most royal residences and common dwellings were oriented to east and west, the directions of their objects of worship - god of the sun in the east, god of the moon in the west (see p 168). Throughout the traditional period, the orientation of most palaces remained due south, as the emperor, who was regarded as the son of Heaven, occupied the same position on earth as his counterpart in heaven, the north pole star (see p 202). In towns and cities with a grid-like structure, houses of commoners were also limited to a north-south orientation. However, the bulk of the population resided in rural areas which were not thus limited, and the orientation of the house was usually decided by the Fu Yuan of the head of the household when the house was being built (see pp 260-261).

Before the Ch'in and Han Dynasties, the orientation of houses was mainly dependent on the objects of worship. In the traditional period, only the palace and buildings in cities and towns adhered to a southern orientation, while most common dwellings were free to choose their own orientation. As the people of the traditional period believed that for every Fu Yuan, each orien-

tation represented a different relationship with nature, they sought to find the best orientation for their families to remain in harmony with nature.

3. Focal point of the residential area : The large house was the physical and spiritual centre of the prehistoric settlement and its construction was carried out with the greatest care (see p 135). During the formation of states, the ancestral temple of the king became the focal point of the state, while houses of higher classes (slave owners) contained an ancestral hall which was the focal point (see p 151). In courtyard houses of the tradional period, the main building which contained the ancestral hall was the spiritual centre of the house. This is evident from the importance placed on the construction of the building (both from its construction order and materials), and from the application of ideal measurements.

Ever since prehistoric times, the focal point of the Chinese living environment has remained the worship area, in which man could communicate with gods and ancestors. The use of the best construction materials, the most intricate decorations and an ideal measurement arose out of the same mentality as their placing of the best sacrifices to appease and please these gods and ancestors. The craftsmen of traditional times regarded the construction rules of the ancestral hall as their most valuable knowledge, which could only be handed down verbally to their sons or close relatives, for fear that this special information would be passed to outsiders.

4. Rituals during various stages of construction : Before building the large house of the tribe leader in prehistoric times, ani-

mals and even humans were killed as sacrifices to gods (see p 137). During the formation of states, rituals and sacrifices accompanied three main steps in the construction of houses of royalty and of the higher classes, which were the clearing of the site, the laying of the house foundation and the placing of the front door (see p 157). In the traditional period, the three main steps which were accompanied by rituals had changed to the laying of the foundation, the erecting of columns and the placing of the beams, while only offerings of food were placed as sacrifices (see p 131).

The Chinese have always regarded the construction process as a sacred occasion. Although the sacrifices placed to the gods and ancestors have changed in content, their purpose has remained the same: namely to request for a smooth building process and pray for good health and virtuousness for the inhabitants.

5. Communication with gods : In prehistoric times, a small hole in the roof of common excavated dwellings opened to the sky; when people worshipped, the smoke drifted out through this opening (see p 138). When tribes joined during the formation of states, the centre of the collective group was an open space, in which gods were worshipped (see p 140). Modified forms of the semi-excavated dwellings also possessed a hole in the roof known as chung liu, and when houses were built above ground, a central opening between buildings known as yen liu was used for worship purposes (see p 156). In traditional ages, the courtyard performed the same function as the chung liu and yen liu.

During the various periods of Chinese history, people have

applied similar methods of communicating with gods. The primitive practice of burning live sacrifices in prehistoric times and during the formation of states performed the same function as the burning of incense and paper money in the traditional period; namely that of sending man's wishes to heaven through the upward drifting of smoke. This need to communicate with gods retained its importance throughout the traditional period so that houses possessed a space which was open to the sky.

6. Delimitation between the world of the living and that of the dead : Each prehistoric settlement was surrounded by a ditch or fence which separated these two different worlds on earth. The area inside the ditch was considered sacred and the area outside chaotic (see p 142). During the formation of states, each house (of the higher class) was considered sacred and was protected from evil by sacrifices of animals or slaves in armour holding spears, who were buried kneeling in front or on both sides of the door (see p 157). In the traditional period, the Chinese believed in the existence of three different worlds : that of the gods, men and spirits. To avoid the disturbance of order in their living world, the Chinese paid sacrifices to the gods and performed rituals to worship and welcome them, borrowing their power to ward off spirits (see p 279). Other decorations such as door gods or ferocious animals which were placed at the front doors of the house fulfilled the same purpose.

Throughout Chinese history, the two main methods which have been applied to demonstrate the difference between the world of man and the world of spirits have been the erection of physical barriers such as ditches, fences or walls surrounding the resi

dential environment, and the offering of sacrifices with the objective of warding off evil spirits from entering. While the residential area in prehistoric times was merely regarded as being sacred, the house in traditional times was considered a microcosm, in which not only evil, but all that was inauspicious was barred from entering.

7. The dual functions of Chinese houses : Already in prehistoric times, each dwelling contained both residential and ritual functions. During the formation of states, the worship area in houses of higher classes became separated - indoors (covered) for ancestral worship, and outdoors (open to the sky) for the worship of gods (see p 162). The house was also divided into a front and back section, with the front section used for worship and the back for living (see p 170). And in the traditional period, the house retained its distinctive characteristic of being both a place for worship and for residence (see p 218), only that by now the objects of worship included not only ancestors and nature gods, but also various household gods such as the god of the stove, god of the well, god of the front door, god of chairs and god of tiles.

Ever since prehistoric China, the Chinese house has been at the same time a temple of worship. While the residential and worship spaces were originally joined, the division began appearing during the formation of states. With the addition of objects of worship in the traditional period, worship spaces became specified : different gods were worshipped at various points of the house. But although there existed different places of worship, they were still all within the boundary of the house. The impor-

tant worship function of the Chinese house can help us understand why all houses, be they of commoners, officials or royalty, so strongly resembled the form of Chinese temples, with the only main difference being the amount and intricacy of decorations or the use of materials.

8. The reflection of the cosmic order in man's residences : The cosmicisation of the house began during the formation of states, which represented a departure from the consecration of the house in prehistoric times. Residential spaces were organised according to their cosmic model of the period; it was believed that only by taking the cosmic model into consideration could they achieve order and harmony on earth. In the beginning of the traditional period, the concept of the cosmos had expanded to include other elements, such as Yin and Yang, the Five Elements, Flying stars, etc. These led to the appearance of Yang Chai Theory, a construct which was concerned with the relationship among man, house and universe.

I believe that Yang Chai Theory developed out of the widespread thinking of the period, in which man no longer wanted to live under the control of gods' will (1). They wished to be master over their own lives; instead of living in fear of the power of nature, they attempted to build a harmonious relationship with nature. The Chinese did not arrive at their understanding of the forces at work within the universe scientifically; rather, from the knowledge they had of nature, they developed their own

---

1) See Lin Chai-Chüeh, 人的自覺 (Man and His Consciousness of Self) in 中國文化新論 (New Expositions on Chinese Culture). Edited by Liu Tai. Vol. 根源篇 (Origins), Taipei : Lien-Chin Publishing Co., 1982) pp 376-390

system cosmology from their inner consciousness and other traditional views. Based on their particular cosmology, the development of Chinese houses had for two thousand years emphasised the search of a proper position for man within the universe without disturbing its order.

Yang Chai Theory indeed employed several cultural elements of Chinese tradition, which included the theories regarding Yin and Yang, the Five Elements, the Emblems (trigrams, hexagrams) which had been conceived to explain all natural phenomena, as well as the nine flying stars, created to judge the auspiciousness or inauspiciousness of events in the human world.

By using the cosmic framework as the prototype of Chinese courtyard houses, people believed they could achieve harmony between the universe and the microcosm. In my opinion, the cosmic framework enabled the Chinese to find their proper place between heaven and earth, and their emphasis on the proper position for themselves and their houses led to a rigid spatial organisation that placed limitations on the possible creations of other house forms.

Ch'i, believed to pervade the whole universe in its various forms, was the essential element which gave life to all beings through its different stages of concentration. The Chinese considered wind, flowing water and mountain ranges to be conveyors of Ch'i, resulting in an ideal residential environment which included a combination of the three.

In the traditional period, many Chinese believed that the ideal house was a container of lively Ch'i which could influence the lives of family members. This container should not only prevent the

escape of lively Ch'i; it should at the same time be well equipped to ward off evil and misfortune. Within this container of Ch'i, the Chinese felt that the spiritual well-being was just as important as the physical, if not more so. And Yang Chai Theory set the standard for their spiritual well-being.

The methods of orienting the house and locating the correct position of front doors in Yang Chai Theory are complex and generally incomprehensible to the common man. I introduced the method of Eight Dwellings of Chou Shu, one of the most popular and commonly applied method, by simplifying the original text into a more understandable form to explain the relationship between a person (head of household) and different locations for the front door in the house through the interaction of personal and spatial trigrams, which indicate either auspiciousness or inauspiciousness. This method enabled the Chinese to find the proper orientation of houses and location of their front doors in order to receive and accumulate lively Ch'i.

The importance of the houseplanning craftsman cannot be underestimated. As the Chinese strongly believed that the craftsman had the power to influence the future of the family through his knowledge of Yang Chai Theory, he was treated with the respect as befitted an honoured guest. Because of his power, the craftsman played a great role in the evolution of Yang Chai Theory through the centuries with the addition of his own views, ideas and habits (1).

The craftsmen placed great emphasis on certain elements in the house, such as the ancestral hall, doors and windows, the courtyard

---

1) See Han Pao-Teh and Hung Wen-Hsiung, Panchiao Lin Family Compound, p 40

and the roof, which followed their traditional ideal measurement. Basic rules which applied to the various ideal measurements are either: 1. The measurement should contain an odd number (such as the number of pu of the courtyard) or the elements must be odd numbered (such as the number of principle rafters supporting the roof), or 2. The measurement of doors and windows should correspond to the auspicious points on either the Lu Ban rule or the door rule, while the size of the ancestral hall followed the verses of ideal measurement. This concept of ideal measurements was conceived by the Chinese not so much to "harmonise with nature" as to form an auspicious living environment.

The same function was performed by the application of decorations with auspicious meanings. Images of animals, gods and heroes were placed at various points in and outside of the house to frighten away potential evil spirits, while objects or phrases which suggested or sounded of auspiciouness were painted, written or carved to decorate the walls, windows and ceiling. A living environment in which the inhabitants were surrounded by signs of good fortune and the belief that evil was kept outside their doors provided the Chinese with psychological protection and spiritual support.

In present day Chinese societies such as Taiwan, Hong Kong and Singapore (1), Yang Chai Theory is accepted by most of the population as part of their culture, and is still followed by many people when building or moving into a new house. Even today, Yang Chai Theory can count among its followers the lettered and literate, as

---

1) Mainland China unfortunately cannot be included as the present society does not encourage or allow the practice of Yang Chai Theory, and even the publication of books on the subject is discouraged.

well as the less educated in both urban and rural areas (1). This is supported by the fact that many architects in Taiwan, Hong Kong and Singapore are required to take into consideration the various aspects of Yang Chai Theory in their planning of houses and flats, commercial and office buildings. The advice of Feng Shui finders is also sometimes sought by architects concerning the proper orientation and position of various elements (2).

Even in already existing buildings, misfortunes such as sickness, accidents, fire or death are believed to be somehow related to the wrong Feng Shui of the building, in which cases the advice of a Feng Shui finder is sought to rectify the malicious influences. This can be done by changing the location of the front door or its scale, the positioning of the furniture and sometimes even the form of the building. Two examples illustrate the concern with the wrong Fengshui: The front door of the municipal building in a southern Taiwanese township has been sealed shut, and all who enter or exit must do so from a side door. This reason for the change is that a series of deaths and illnesses among the employees inside had been attributed to the bad Feng Shui of the front door, and the mayor was forced to seal the front door for good. The second example shows a main problem which the city council must face : Every housing project contains a certain number of flats which are considered to have bad Feng Shui and therefore remain unsold until corrections are undertaken (for example changing the location of doors when possible or the shape of rooms) (3). Faced with this situation, Han Pao-Teh concludes that widespread education and

---

1) See Han Pao-Teh, "A Study of Feng Shui", p 124
2) See Lung Tien-Chi, 風生水起好運来 (Feng Shui Leads to Auspiciousness), (Taipei : CTS Publishing, 1985), p 8
3) See "Fengshui : The Chinese Art of Geomancy" in Sinorama, May 1986, Vol. 11, No. 5, pp 20-22

prosperity of the modern Chinese society has not diminished people's belief in Feng Shui, as their psychological need for supernatural support remains as great as ever.

In the event of any misfortune, the Chinese may very well attribute the cause to a disturbance in nature, rather than find a rational or scientific explanation for the calamity. And they believe that through the application of Yang Chai Theory, this supposed disturbance can be rectified to achieve a harmonious living environment.

Presently there are a number of people working on explanations for the effectiveness of Yang Chai Theory, among which a theory involving the earth's magnetic field has aroused some attention. Many of Feng Shui's phenomena are explained by the earth's magnetic field, replacing the concept of Ch'i, which remains hard to grasp for the common man (1).

This represents an attempt at explaining some of the principles of Yang Chai Theory from a scientific point of view to counteract the voices which decry Yang Chai Theory as mere superstition. But when the attempts consist of explanations which are imposed upon the principles of Yang Chai Theory (eg. dividing the magnetism of man

---

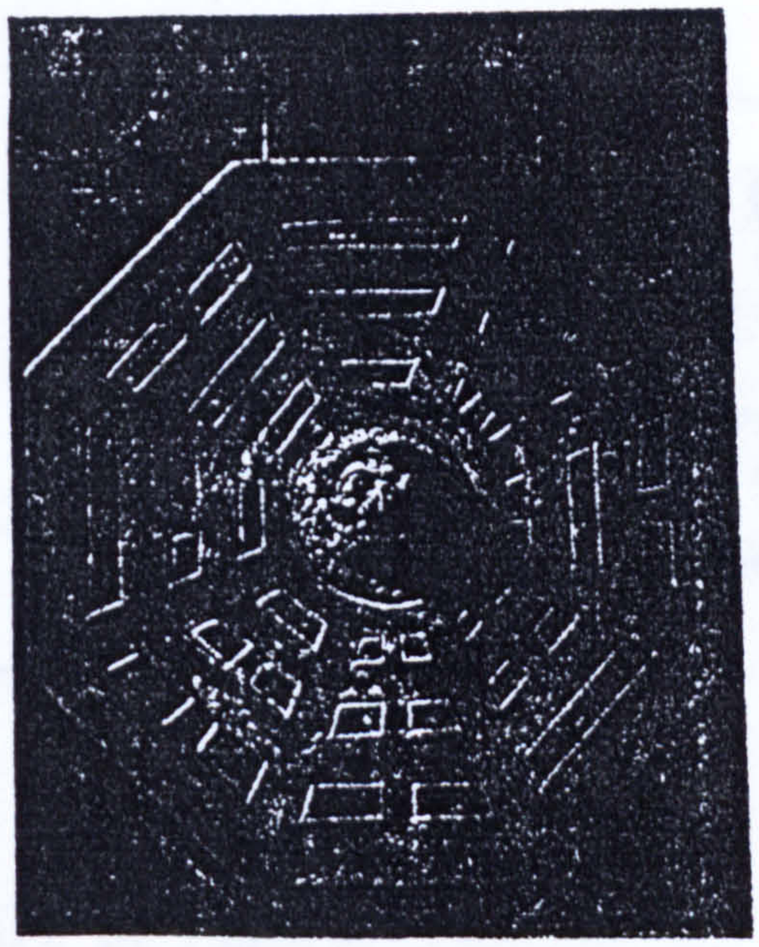
1) This theory holds that man as a magnetic field is naturally induced to other magnetic fields. People born in different years possess different degrees of magnetism, which are caused by the influence the movement of the planets in the solar system have on the earth. The magnetism of man is grouped into eight degrees, as is the magnetism of houses which are oriented to one of the eight cardinal directions, both corresponding to the eight trigrams. Both furniture and man can disturb the magnetic field of certain points of a house and should be moved to other positions to avoid bad influences. See Lao Ta-Kang, Feng Shui and the Protective Mirror, p 202; Chen I-Kuei, 陽宅學 Yang Chai Theory, (Taipei : Chiulung, 1981), Chapter 1

and houses into eight different degrees to correspond to the eight trigrams), I am skeptical about the real merit of these scientific explanations, if any can actually be found. Although some points in Yang Chai Theory may find adequate logical explanations, it is not possible or necessary to place the whole of Yang Chai Theory into a scientific context.

Even elements of Yang Chai Theory for which there are no logical basis have set the standard for Chinese houses, be they for the better or for the worse. The common use of the Lu Ban rule and door rule for doors, windows and other measurements led to a standardisation for these architectural elements, which can be considered a contribution of Yang Chai Theory. On the other hand, oral verses regarding the measurement of houses sometimes set unreasonable standards leading to an uncomfortable living environment (e.g. the ancestral hall of the new mansion in the Lin Family Compound).

What is important is that regardless the origin and lack of scientific basis for many aspects of Yang Chai Theory, the Chinese have been applying it to their houses for a very long period of time. From the cultural point of view, what is at issue is not how much of Yang Chai Theory comprises of man-conceived elements, but the fact that Yang Chai Theory did strongly influence the construction and form of Chinese houses. In order to fully understand the characteristics of traditional Chinese courtyard houses, it is necessary to first accept the fact that Yang Chai Theory, including all its inexplicable or man-conceived elements, forms a part of Chinese culture which is reflected in Chinese architecture.

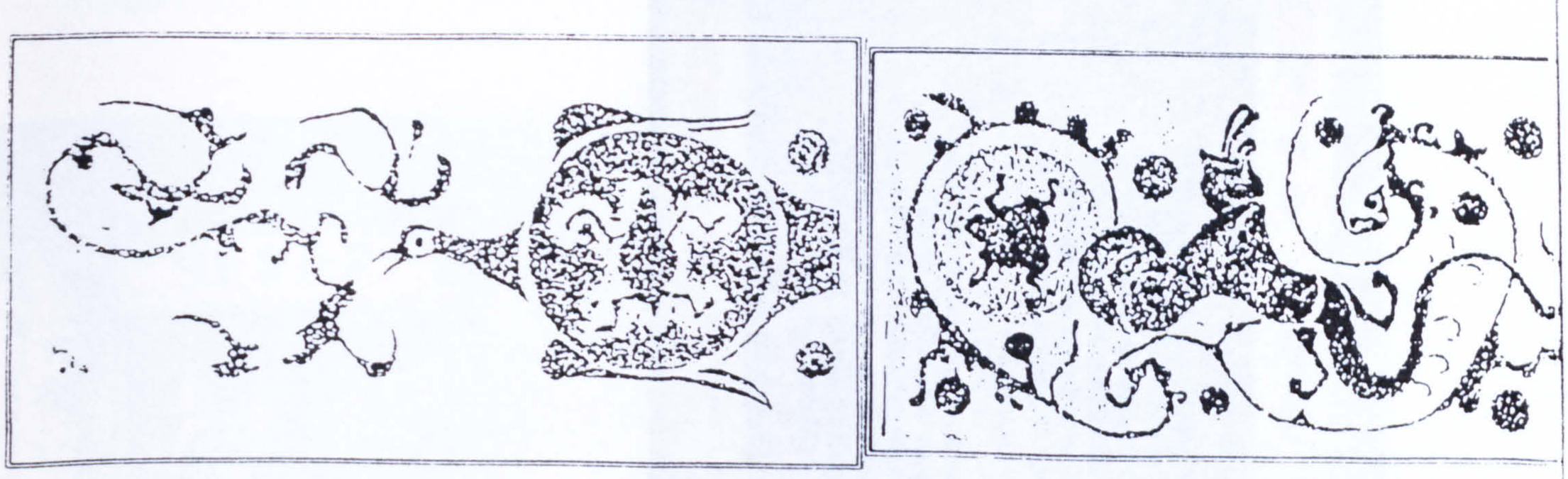
Figure 2-3-27 c Diagrams of Yin Yang and eight trigrams (from Sinorama, Dec. 1984, p 96)



Civilian gods as door gods

Figure 2-3-27 d Figure of the Sun God

Figure 2-3-27 e Figure of the Moon God



Figures 2-3-28 a & b Plaques of lion's head

(from Juan Chang Jui, "Art of Folk Witchcraft", in Hai Wai Hsüeh Jen, No. 124, p 36)

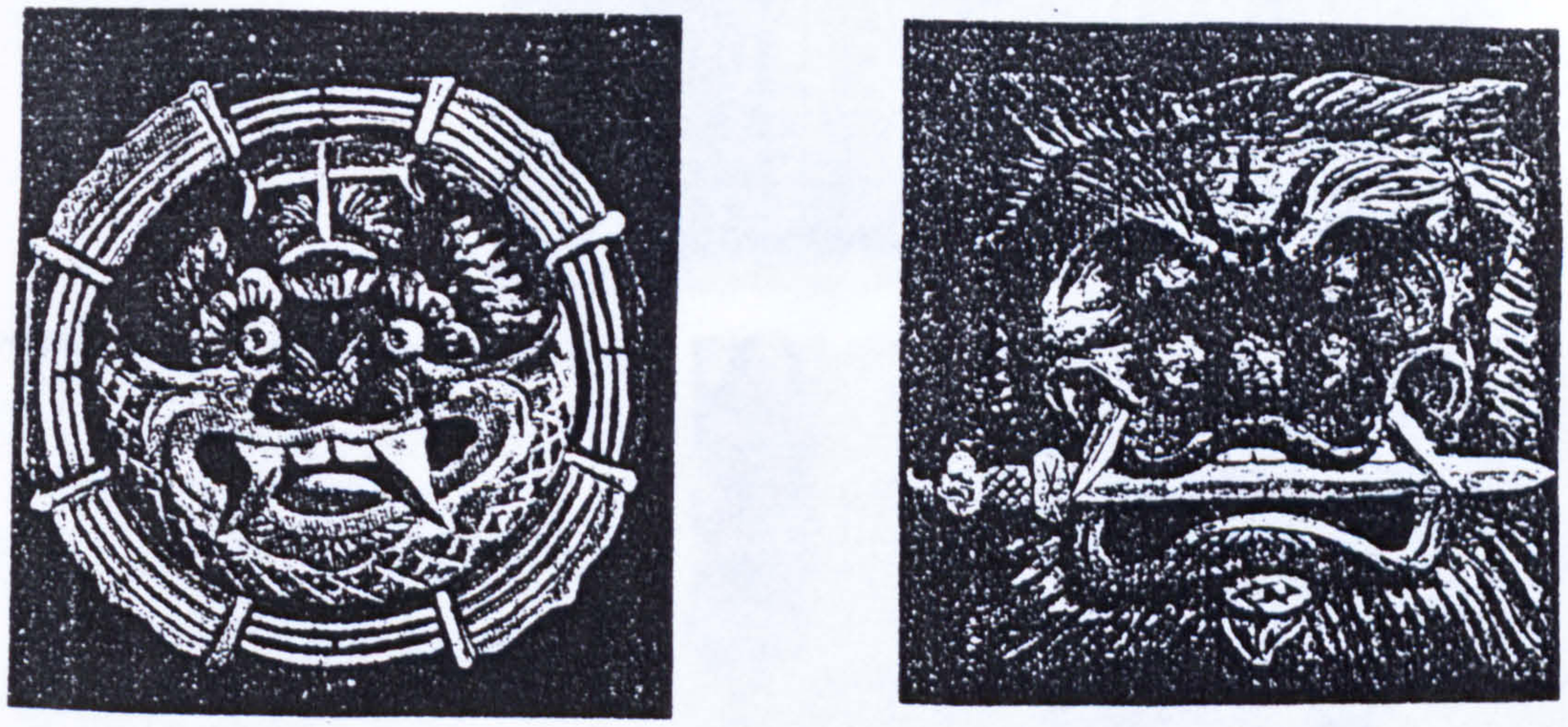


Figure 2-3-28 c Plaque of tiger's head

Figure 2-3-29 New Year Couplets

Figure 2-3-30 a Statue of Lion

Figure 2-3-30 b　　Sword shaped screens to ward off evil spirits
(Lee Chien-Lang, 1978, p 100)

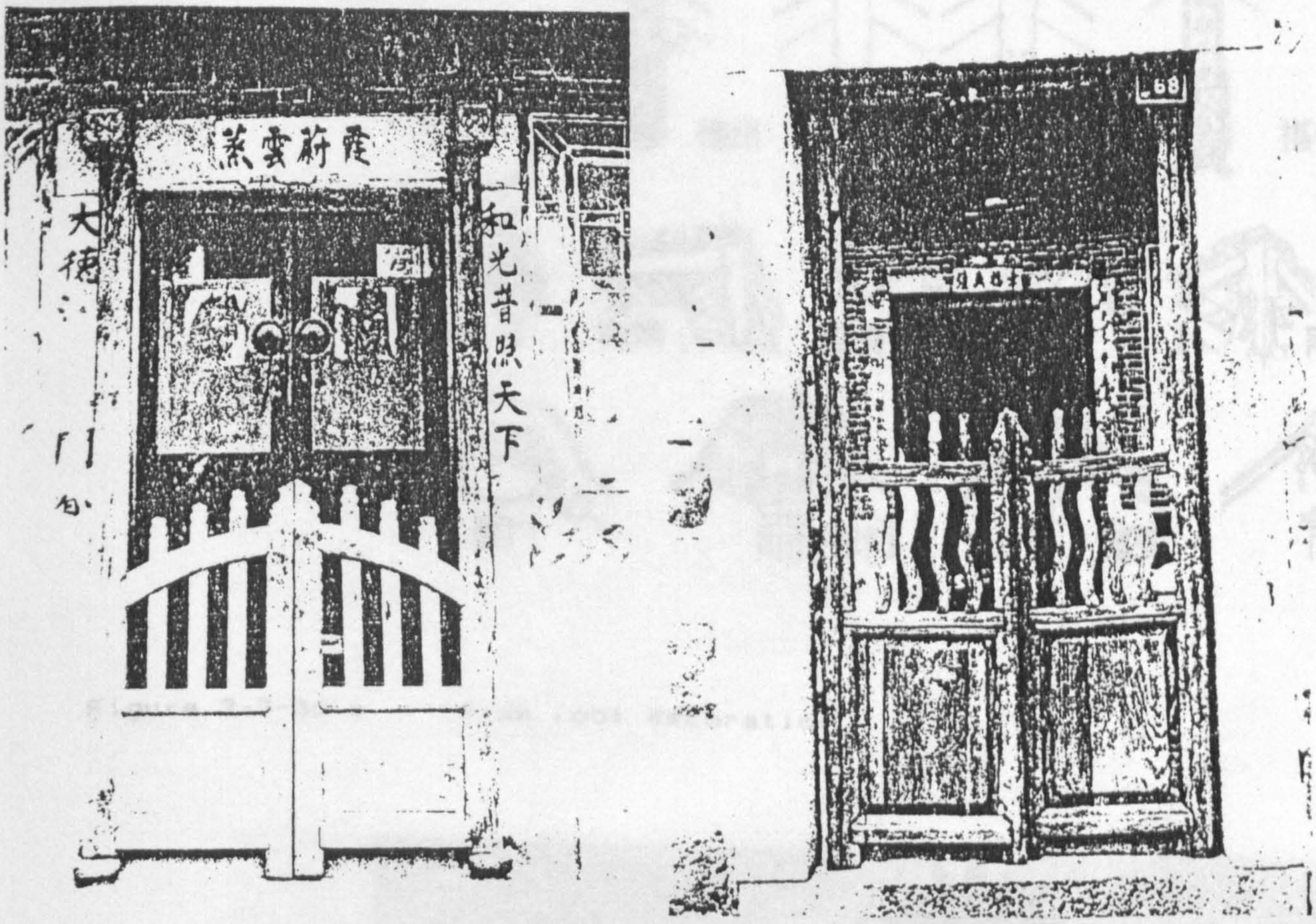


Figure 2-3-30 c　　Peachwood talisman

(from Ten Books of Yang Chai, pp 298-299)

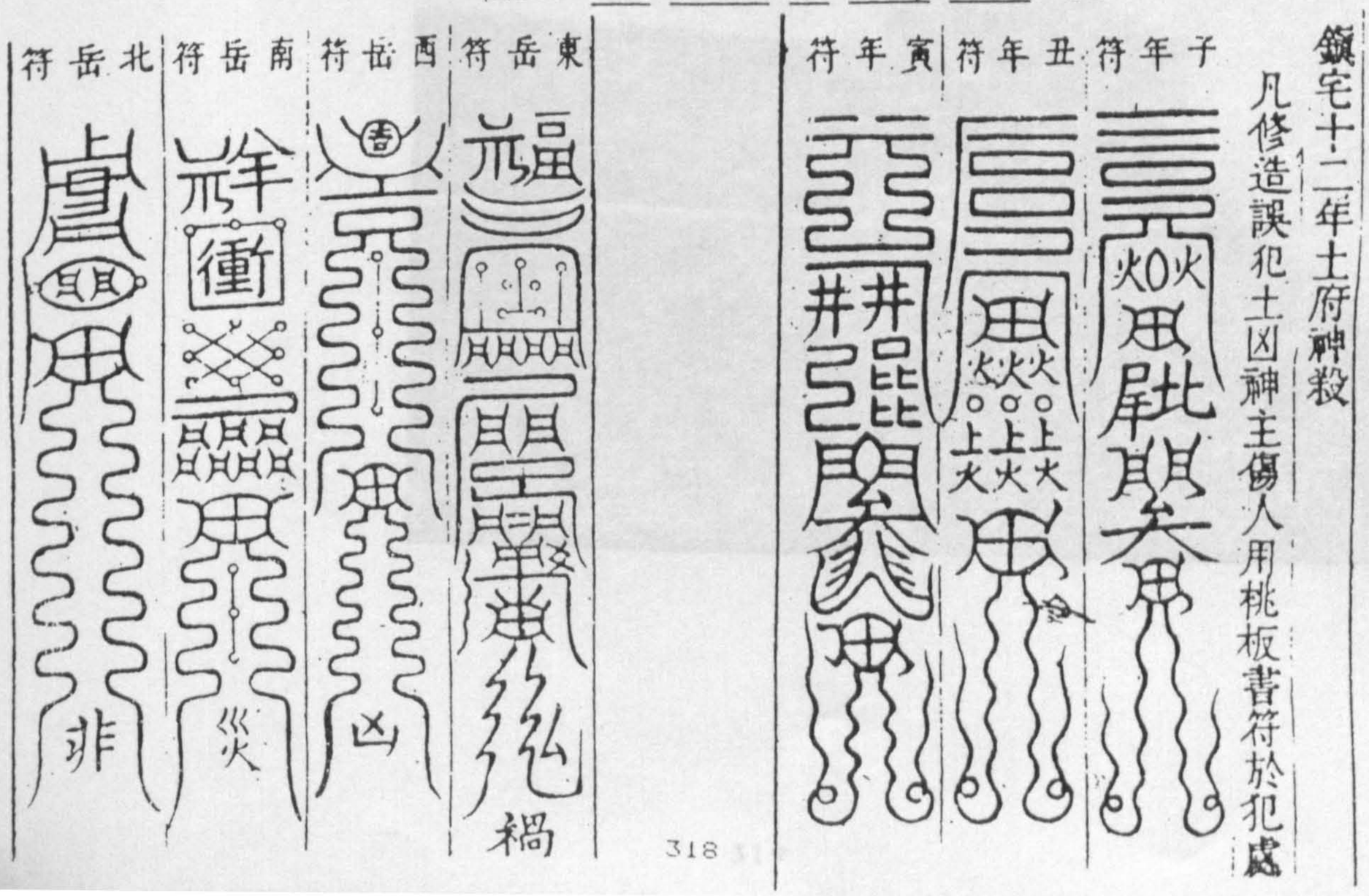


Figure 2-3-30 d Aquatic plants and animals as roof decorations

(from Huang Han Ming, "Traditional Characteristics of Domestic Architecture in Fukien" in Architect, Dec. 1984, p 190)

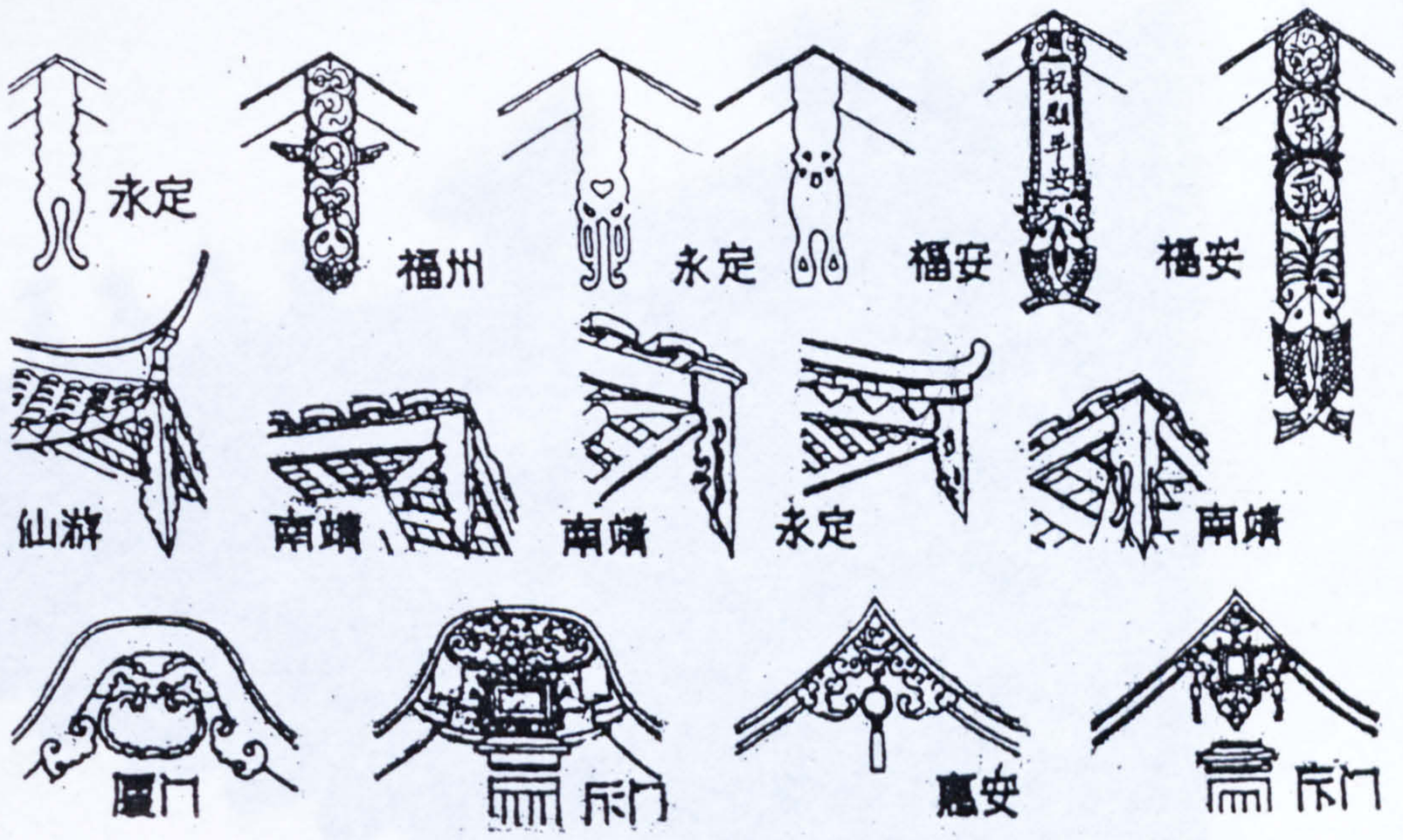


Figure 2-3-30 e Fish roof decoration

Figure 2-3-31 a "Walking animals" decorating each roof end of palace

Figure 2-3-31 b Pavillion as roof decoration of common house

Figure 2-3-32 a　　Staircase-shaped side wall
(San Teh-Chi, "Village Stream, Courtyard and Ma-Tou Wall" in Essays on Architectural History, Vol. 6, p 130)

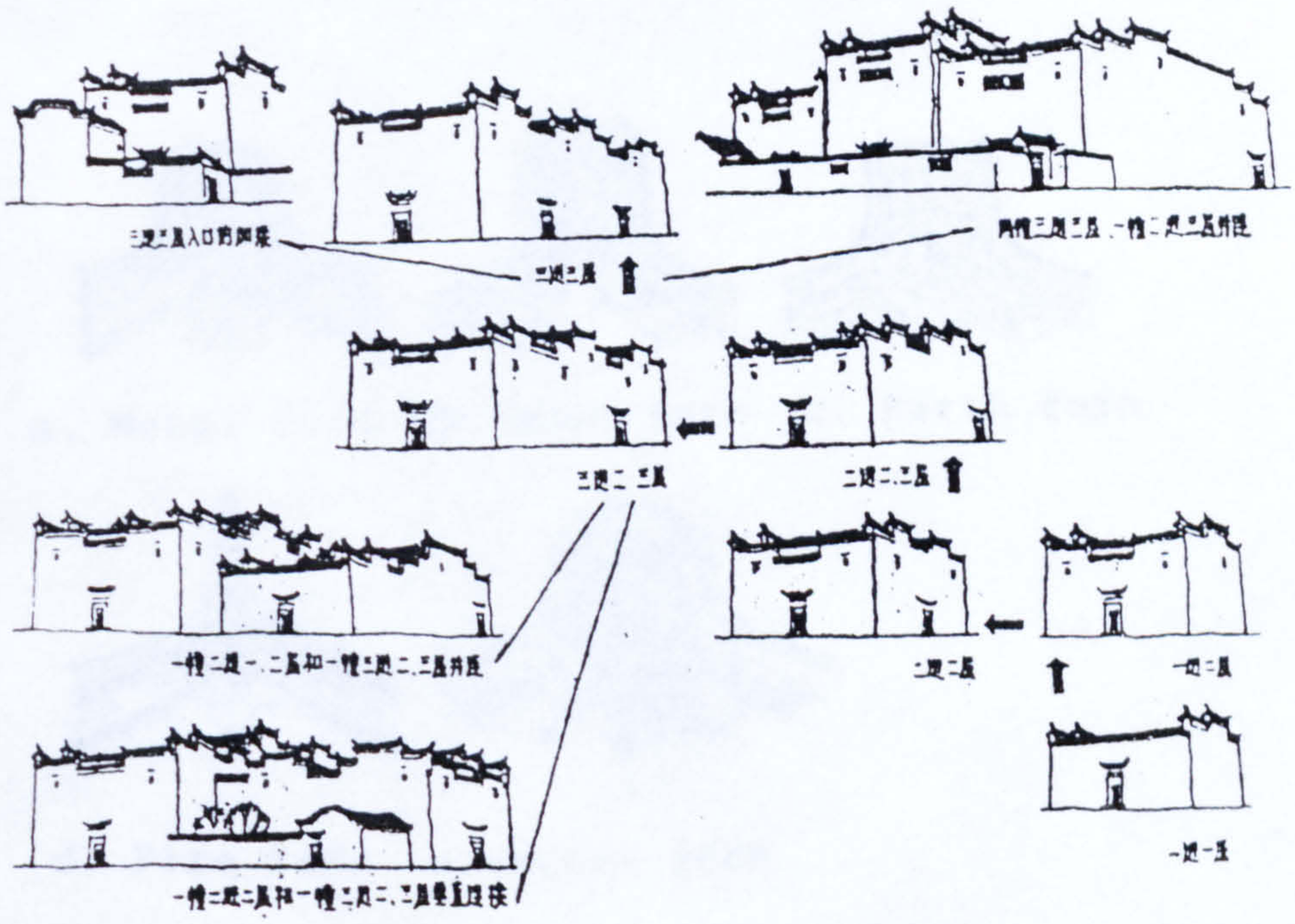


Figure 2-3-32 b　　Staircase-shaped side wall

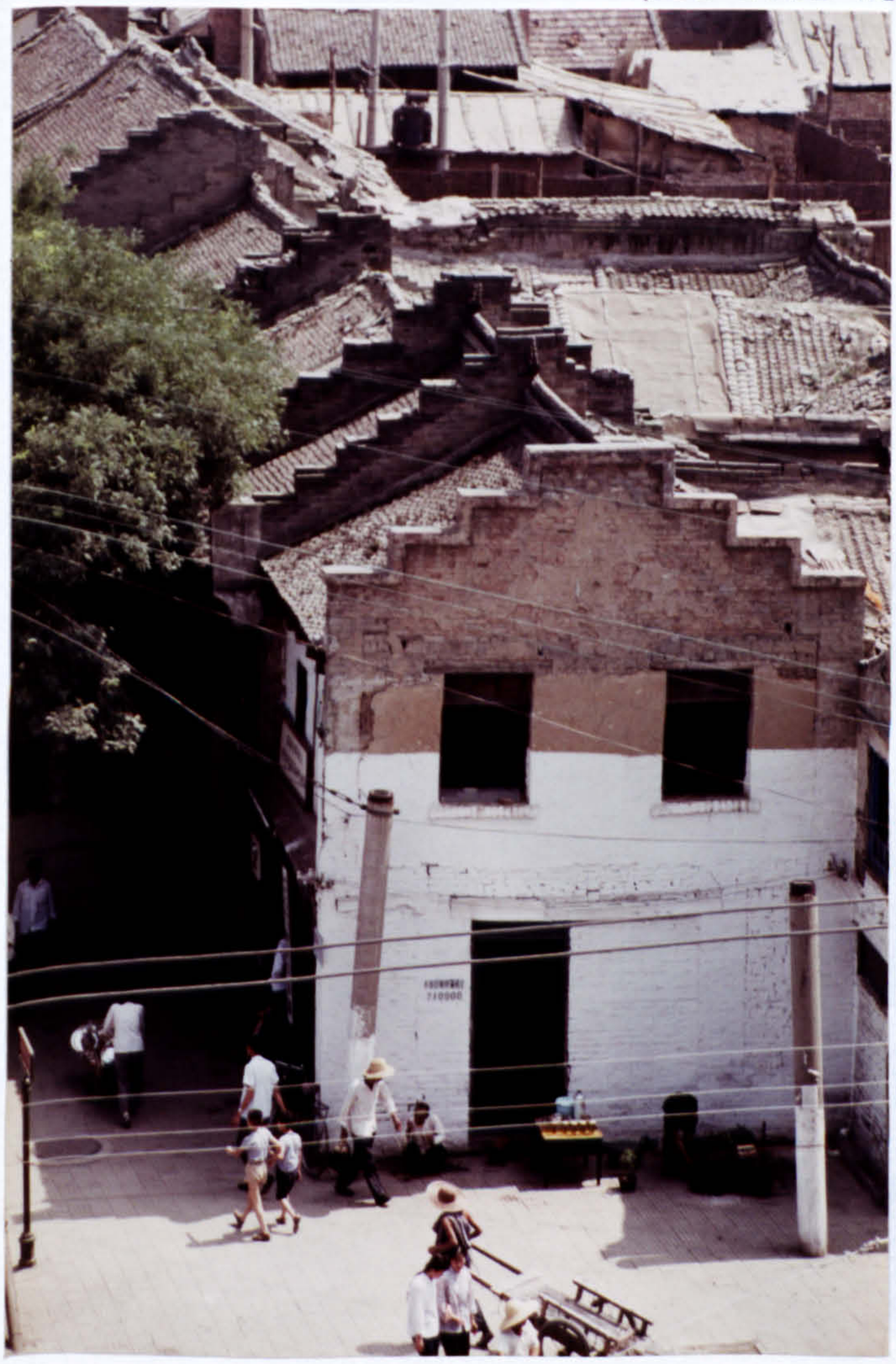
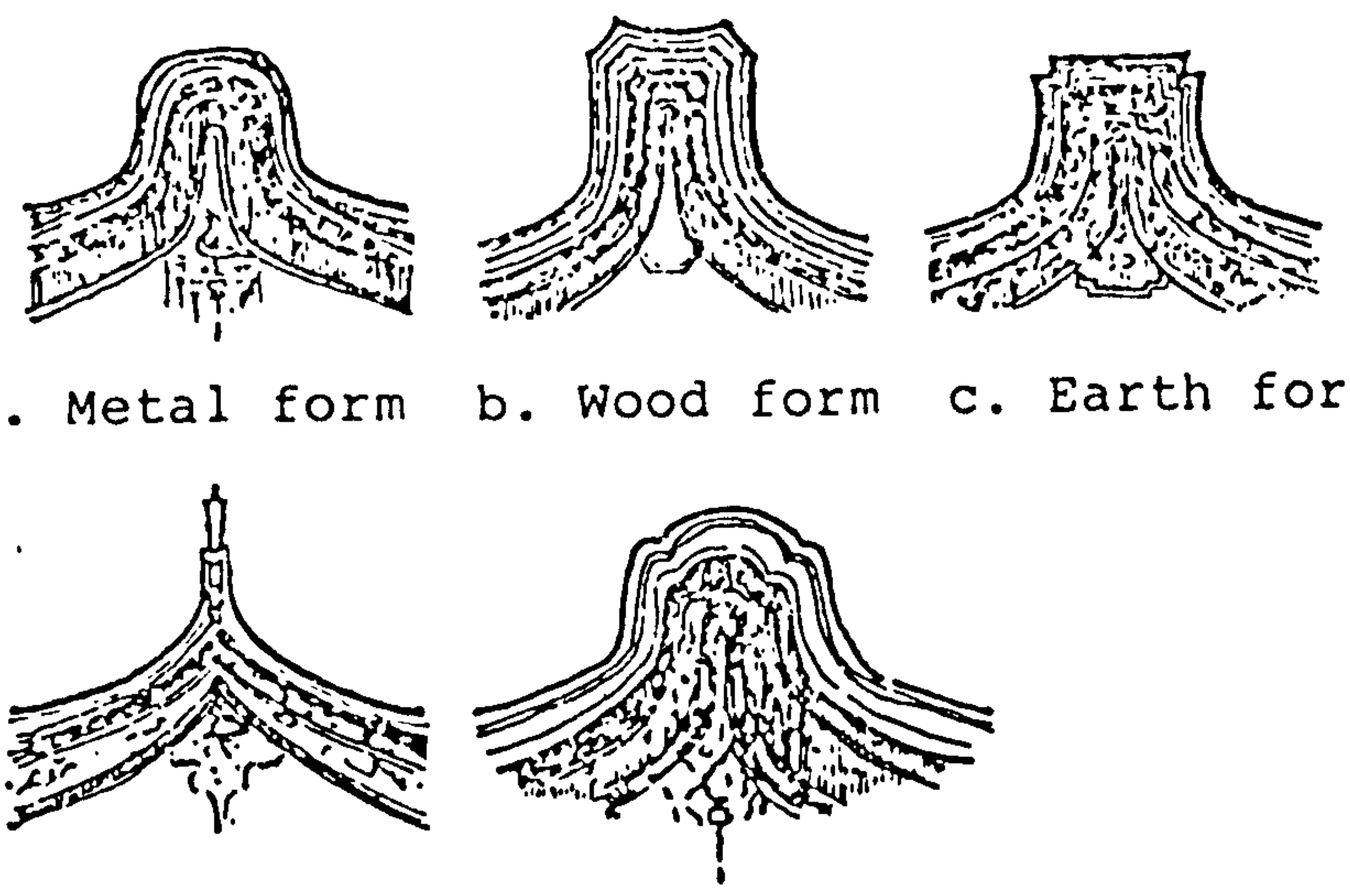


Figure 2-3-33 a Five forms corresponding to the five elemental mountain shapes

(Lu Yuan-Ting and Wei Yen Ch'un, "Domestic Houses in Kwangtung, Chaochou and Shantou" in Architect, Dec. 1982, p 156)



a. Metal form b. Wood form c. Earth form

d. Fire form e: Water form

Figure 2-3-33 b Earth star-shaped side wall in Kinmen
(Lee Chien-Lang, 1978, p 87)

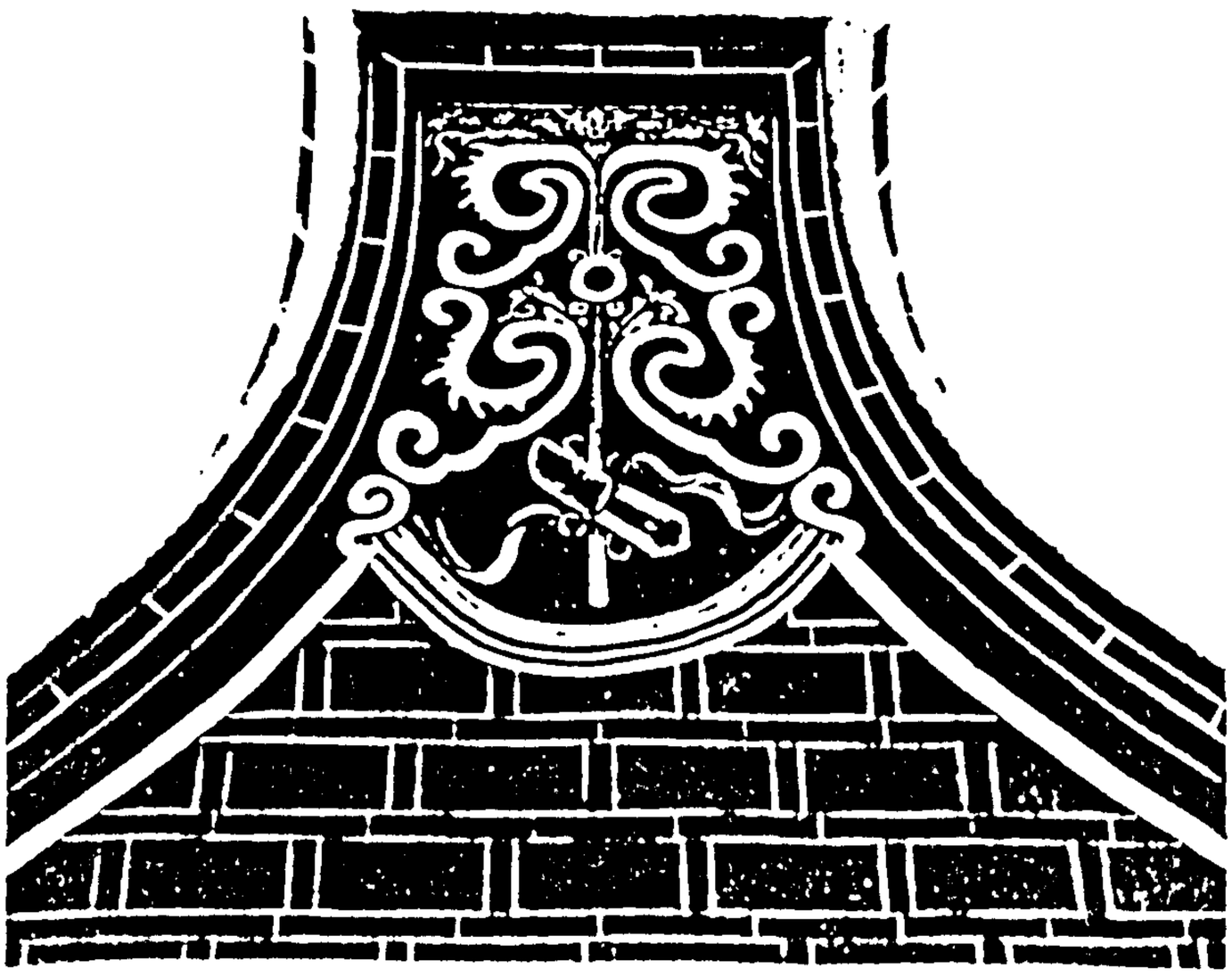


Figure 2-3-33 c　Water star-shaped side wall in Kinmen
(Lee Chien-Lang, 1978, p 99)

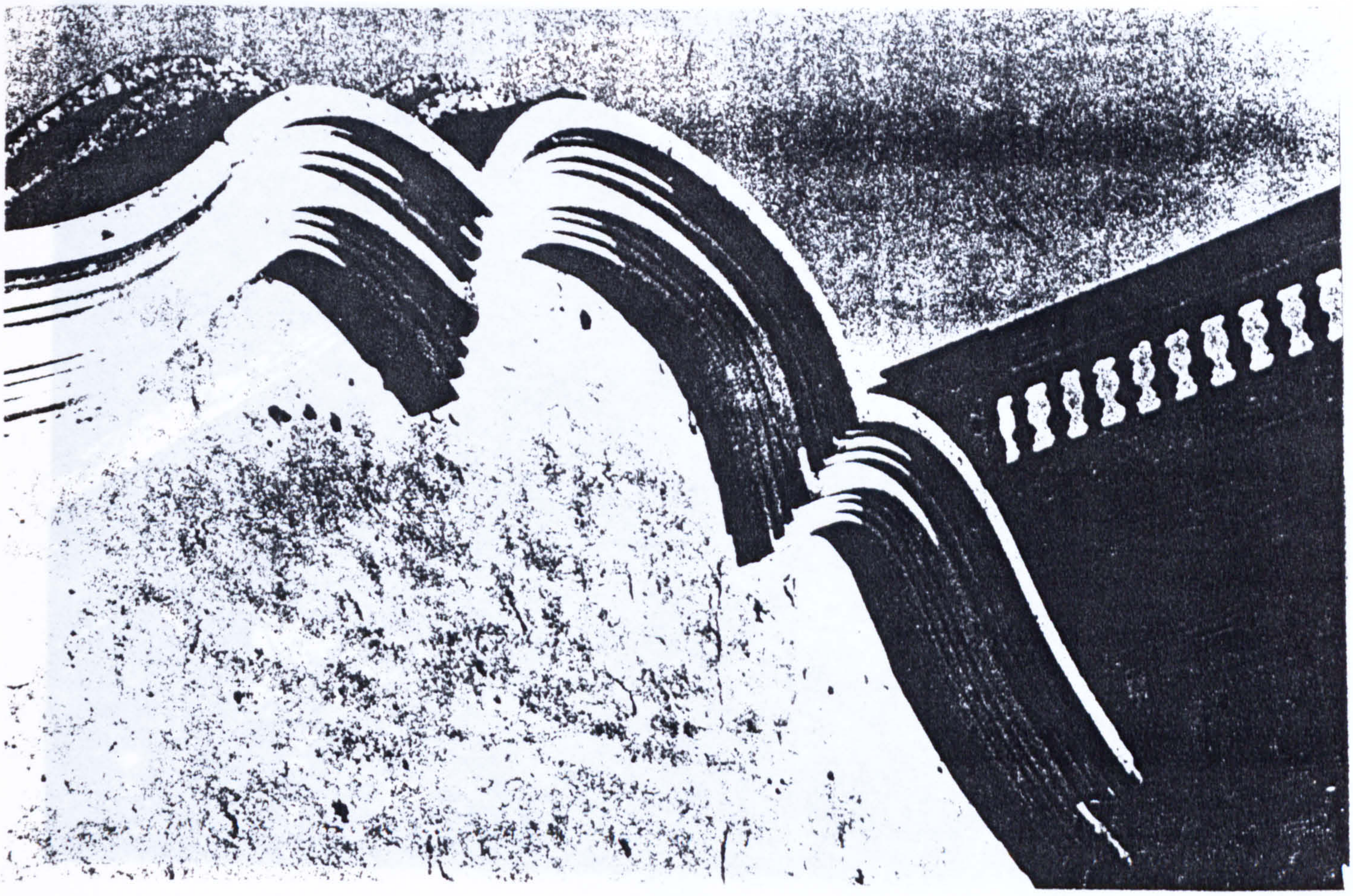


Figure 2-3-33 d　Metal star-shaped side wall in Fu Shan

Figure 2-3-34 a Carved wood or ceramic decoration on side wall

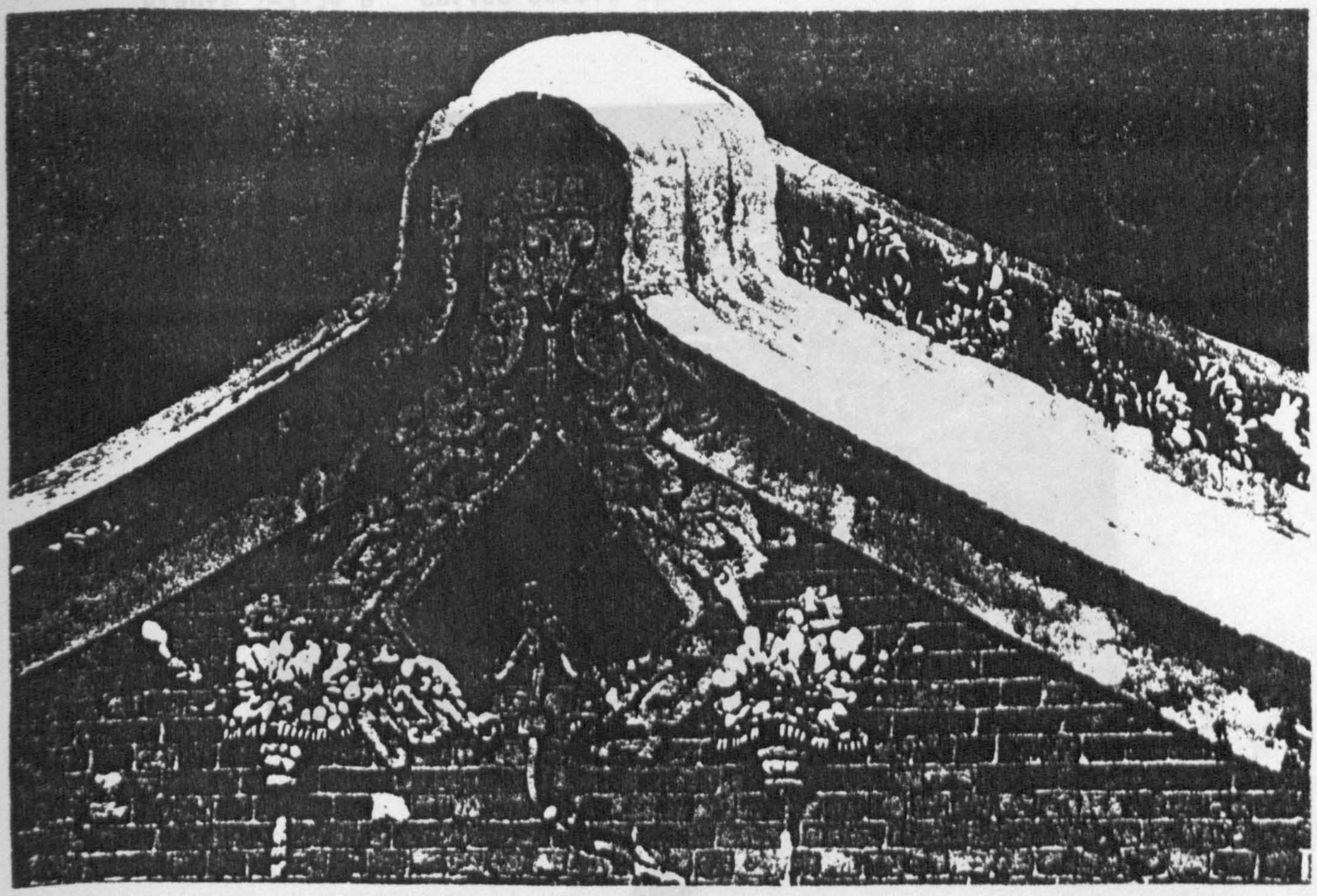
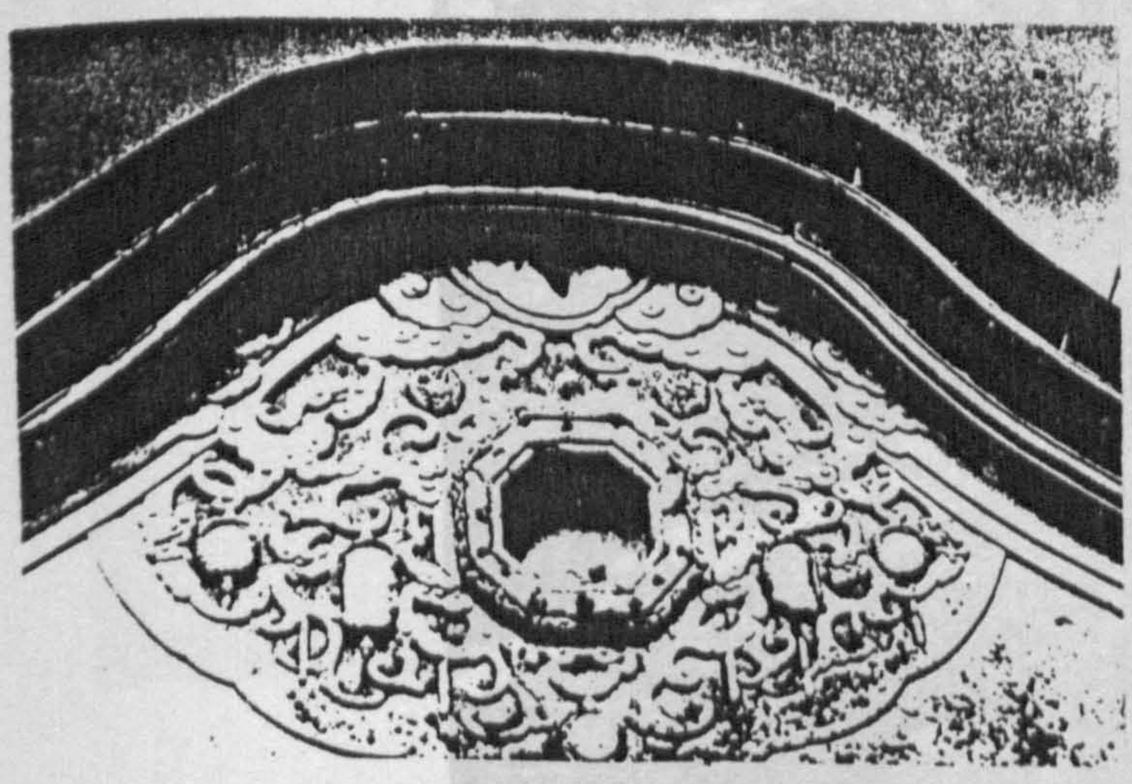


Figure 2-3-33 e Jade decoration on side wall



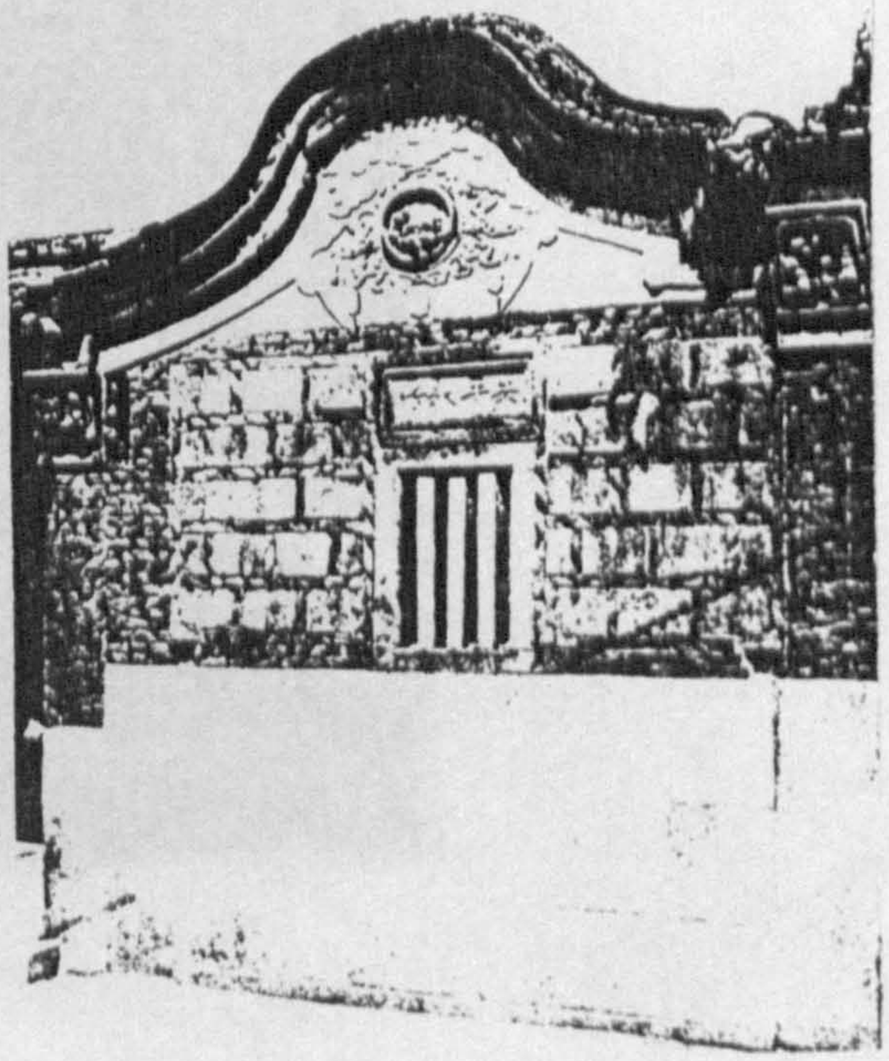
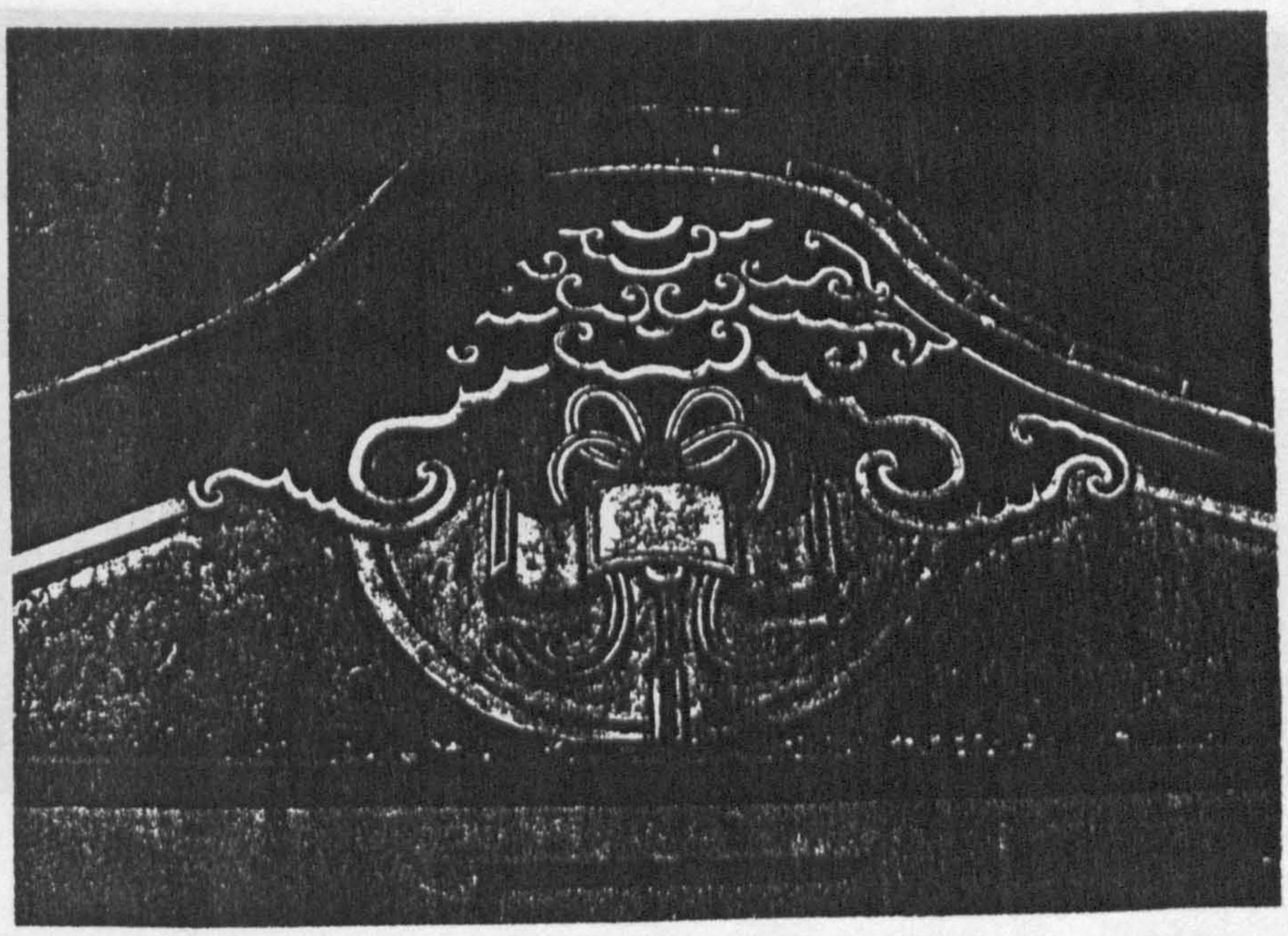


Figure 2-3-34 b Carved scroll on side wall



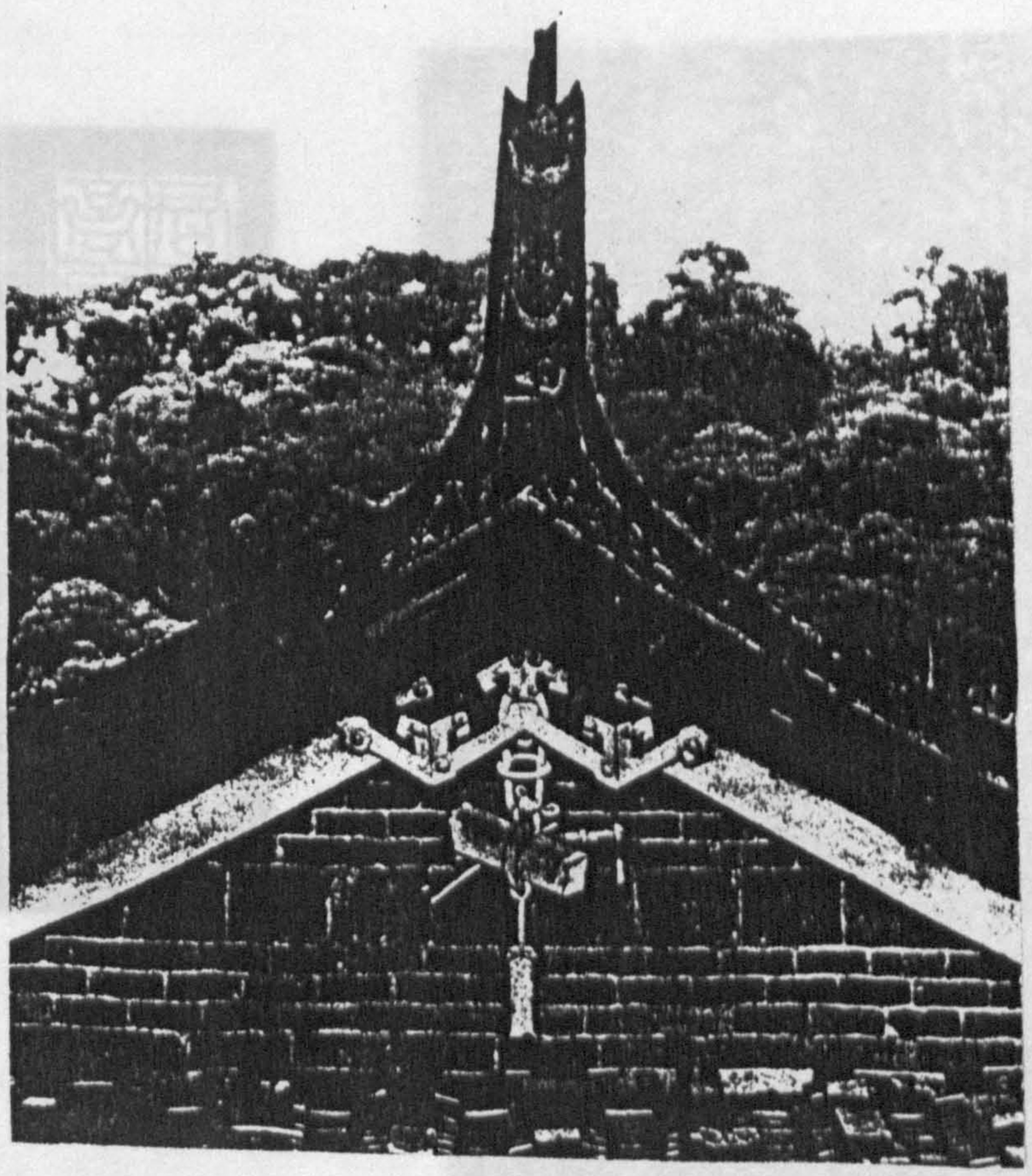


Figure 2-3-35 Decorations on the main beam of the ancestral hall

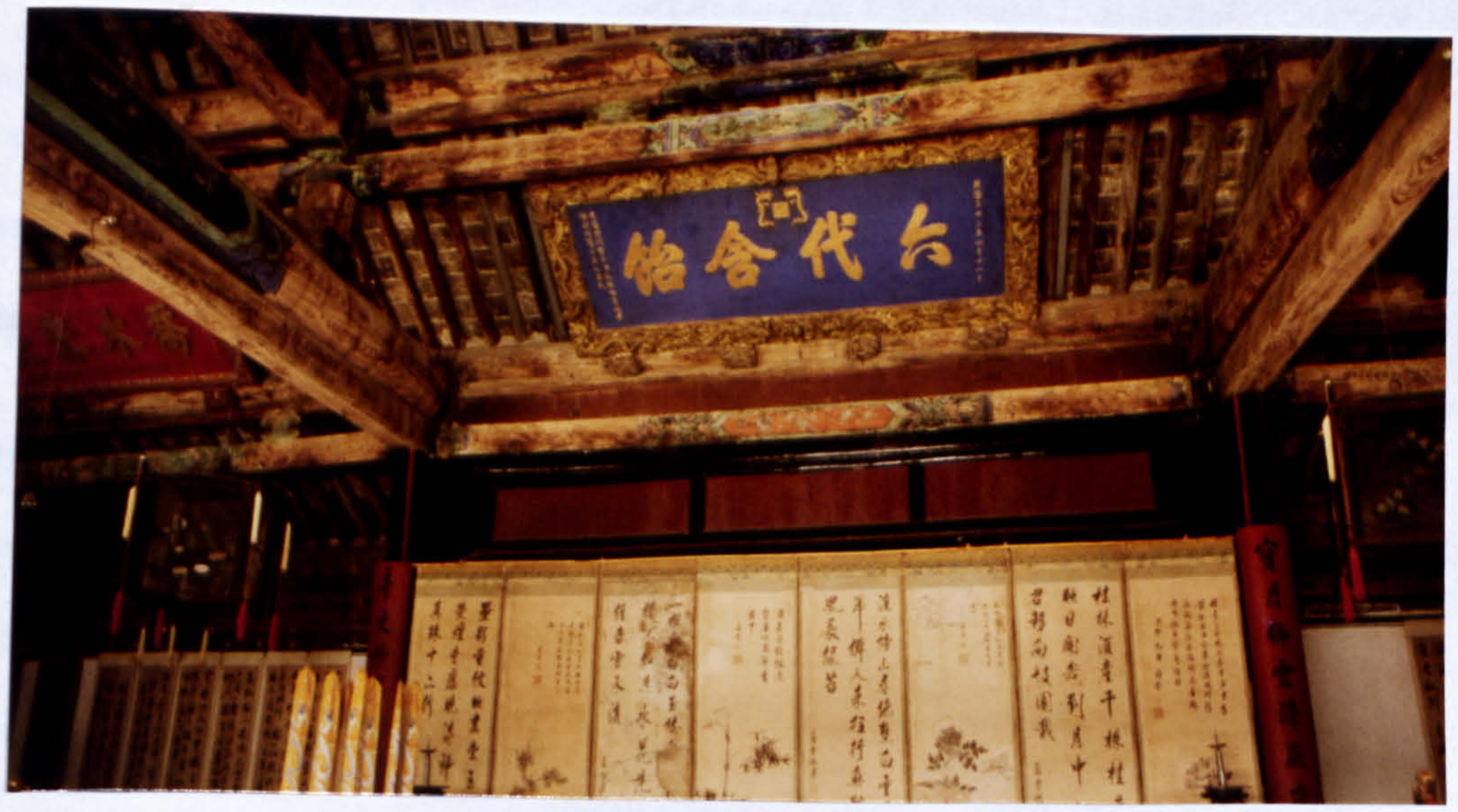
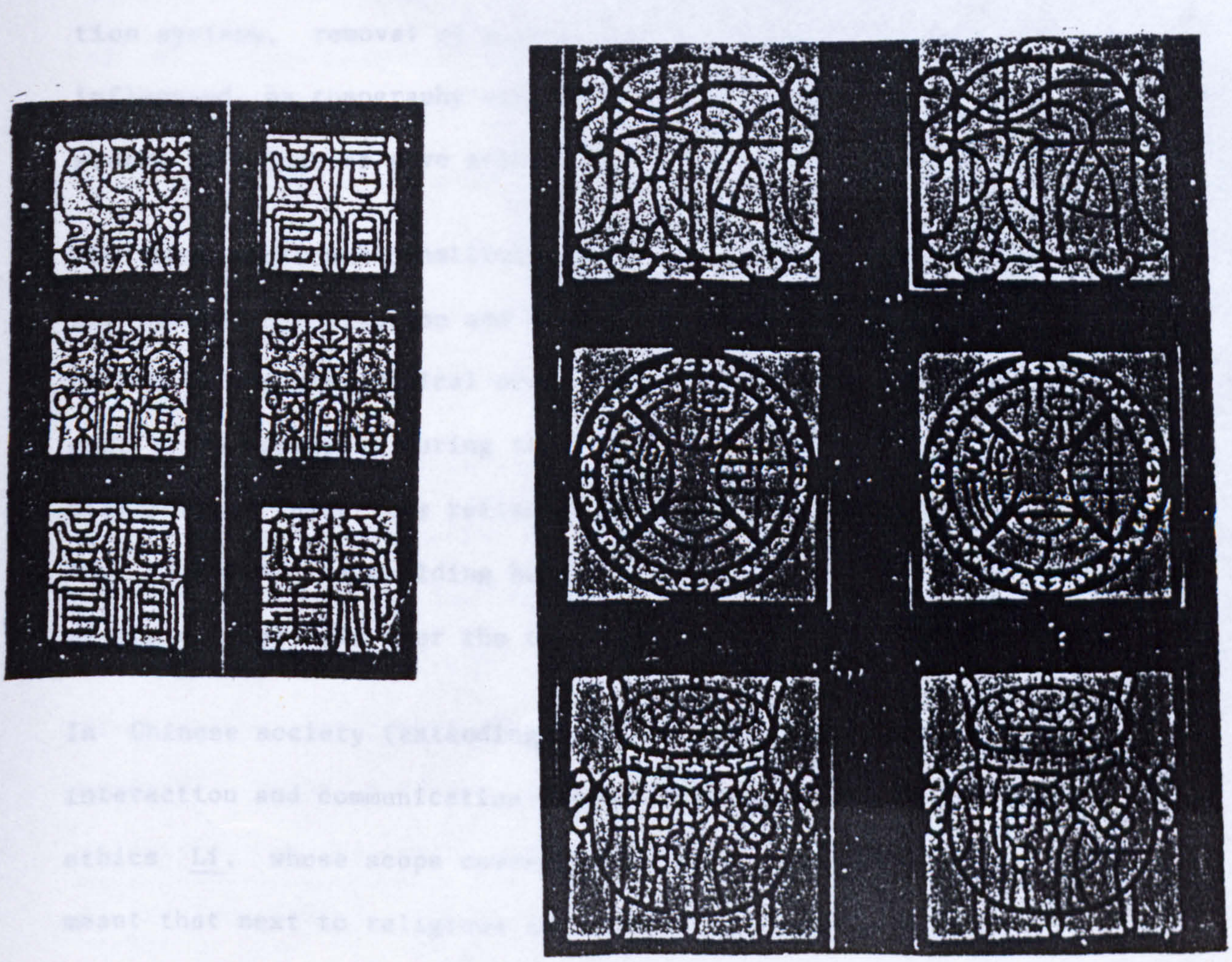


Figure 2-3-36 Auspicious words and characters in window lattice



Final Conclusion

In this thesis, I have discussed different factors belonging to two main aspects - the physical and socio-cultural - which determined the characteristics of the Chinese courtyard house. The various factors contributed to the stability in the form and the spatial arrangement of the courtyard house in traditional China.

In Part 1, Chapter 1, I took 34 examples of courtyard houses from different regions in China as the basis of my observation in understanding the elements in the spatial organisation of courtyard houses which were influenced by physical factors such as climate and topography. Different methods were developed to achieve a comfortable living environment in each specific climatic zone, such as varying the size of courtyards and buildings, natural ventilation systems, removal of partitions. Variations in the house form influenced by topography can be seen in the use of two- to multi-storey buildings to save arable land in mountainous areas.

The above mentioned constitute the visible factors which influenced the spatial organisation and form; not so obvious or hidden factors belong to the hierarchical order derived from the Confucian ethical code which prevailed during traditional China. The adherence to the hierarchical order was reflected in the spatial organisation (eg. the rising of the building height toward the rear, the importance of the central axis over the two sides) and zoning principles.

In Chinese society (extending from the family to the state), the interaction and communication between members followed the code of ethics Li, whose scope covered all facets of Chinese life. This meant that next to religious ceremonies, all events in Chinese

family life were also ceremonies laid down by Li, including the act of having a meal, the proper sequence when walking and even sexual intercourse (also known as the Li of the Duke of Chou). We can therefore say that the courtyard house can be regarded as a main locality for ceremonies of daily life.

Another group of factors which influenced the characteristics of the courtyard house belong to the symbol system. This symbol system derived from a non-scientific view of the natural world which was developed by the Chinese in their attempt to understand the working of the universe. This view is a combination of ancient religious thinking, Confucian and Taoist views of nature. To put it simply, the Chinese believe that all things in the universe follow certain principles in their growth and movement in accordance with their intrinsic nature. The principles governing the growth and movement of all things cannot be defied as they are essential in achieving an orderly universe (1). As the natural universal order is not controlled by man, man's attitude should be to accept and mantain this order to gain a better life. Since man's own life is produced by the workings of nature, people should not only be respectful of nature, but also try to harmonise with it and not conquer it.

The cosmic framework and the concept of Ch'i are two main components of Yang Chai Theory. The cosmic framework consists not only of Yin and Yang (the two fundamental forces in the universe) and the Five Elements (of which all things are composed), but also of Nine Halls, the number of heaven, four seasons, four guardian animals, eight cardinal points and the emblems. The basic principles of the concept of Ch'i in the traditional period were:

---

1) See Tang Chün-I, The Value of the Spirit of Chinese Culture, p 63

1. the universe was a container pervaded by Ch'i; 2. the entire universe consisted only of Ch'i, which underwent different phases of condensation and dispersion - Ch'i's condensation resulted in the life of all beings, while its dispersion led to their death; 3. Ch'i was responsible for the existence of all forms; 4. Men are constantly immersed in Ch'i just as fish are constantly immersed in water; and 5. Ch'i was categorised into Yin Ch'i (earthly Ch'i) and Yang Ch'i (heavenly Ch'i).

The other two main components of Yang Chai Theory are auspicious measurements and decorations. The Chinese believed that by following Yang Chai Theory, it was possible for them to study nature's rhythm and find the correct arrangement for their residences. This conformed to the Chinese wish of ensuring one's security and happiness by adapting himself to the influences of the universe and to remain in harmony with it.

A lengthy section in Part 2 was devoted to introducing the quality of residences as decided by Yang Chai Theory, including simplified rules and methods of application. My main concern was that too few comprehensive books on Yang Chai Theory exist, leaving the researcher with mainly ancient manuals from the different schools, each with their own interpretation of the importance of various elements and belittling the views of other schools. I have deleted contradictions from the different schools to arrive at the characteristics which are common to all schools in order to explain the relationship among Yang Chai Theory, the courtyard house and inhabitants.

Through the strong support of philosophers such as Shao Yung (A.D. 1011-77), Chang Tsai (A.D. 1020-77), Ch'eng Yi (A.D. 1033-1108) and

Chu Hsi (A.D. 1130-1200), and astrologers Li Tsun-Fung and I Hsin (both Tang Dynasty) (1), the planning of Chinese houses commonly took into account elements of Yang Chai Theory, which were derived from concepts of traditional Chinese philosophy and astrology. The Chinese treated the house as the embodiment of their traditional values, and did not try to create new forms of houses or to develop new patterns of living space, but throughout the ages, adhered to the concrete form of their unchangeable spatial arrangement - the courtyard house form.

Towards the end of the traditional period and with the formation of the Chinese Republic in 1911, the transfomation of China from an agricultural towards an industrial society led to the departure from the traditional life style. Social values and family structure were adjusted to suit the new life styles. In traditional China, a prevailing saying had been "Contentment brings happiness" (知足常樂), teaching people to search for spiritual happiness despite their limited material life. As the farmer's harvest (and thus income) was seasonal but his expenses year-round, most people lived in reduced circumstances. The earnings went to feeding the numerous members of each family and little could be saved, so that people were taught to be content with what they possessed and search for spiritual fulfillment. If a main feature of the agricultural society can be considered its closed and statical "Economy of scarcity", the arrival of the industrial society brought with it a dynamic "Economy of abundance" (2). The latter emphasised the improvement of technology and exploitation of natural resources,

---

1) See Han Pao-Teh, A Study of Feng Shui as a Concept of the Environment, pp 125-128
2) See Fei Hsiao-Tung, 鄉土中國 (Rural China), (Shanghai: Kuan Cha, 1948), pp 3-6

leading to new values which were a departure from the traditional respect for nature and the wish to harmonise with nature.

At the same time, with the impact of western ideas, the Chinese family system began to deteriorate. According to Ruey Yieh-Fu, traditional roles of submission were rejected by both women and youths, resulting in the following changes: 1. emancipation of women, 2. liberation of youth, 3. loosening of kinship ties, 4. weakening of Confucian ethics (1).

Most noticeable in the change is a decreasing of joint families and an increasing of stem and nuclear families (2).

With the changes in the family system, the basis for the hierarchical order within the traditional courtyard house was destroyed. A predefined hierarchy in the form and spatial arrangement within the courtyard house was rendered unnecessary, resulting in the loss of an important element in the original spirit of the courtyard house - what remained was usually only a shell.

In both a modern capitalist Chinese society (Taiwan) or communist society (Mainland China), the traditional courtyard house has faced its demise. It is sad to observe what has become of the joint family courtyard houses and the uses it has been put to. In Taiwan, the acceleration of its industrialisation has brought most rural young people into the cities and towns, leading to a speedy increase in the population of cities. The need for adequate housing likewise increased, so that the demolition of all forms of courtyard houses to make way for multi-storey public housing became a

---

1) See Ruey Yieh-Fu, 中國家庭結構之變遷 "Changing Structure of the Chinese Family" in 台大考古人類學刊 "Bulletin of Anthropology", Taipei:National Taiwan University, p 10
2) ibid, p 11

main concern in urban planning. For example, House 26 is one which would have met such a fate had not public outcry prevented its demolition. It has now been moved to another site on the outskirts of Taipei and has been carefully reconstructed and preserved as a cultural and architectural relic. There are also plans to turn the Lin Family Gardens and the compound into a museum.

In rural Taiwan, courtyard houses still exist, but owing to the diminished size of the families, many rooms stand empty and bare. In some cases where the house was equally divided between the children, one half has been torn down (including half of the original ancestral hall) to make way for a modern, western-style house, while the other half stands forlorn and lop-sided.

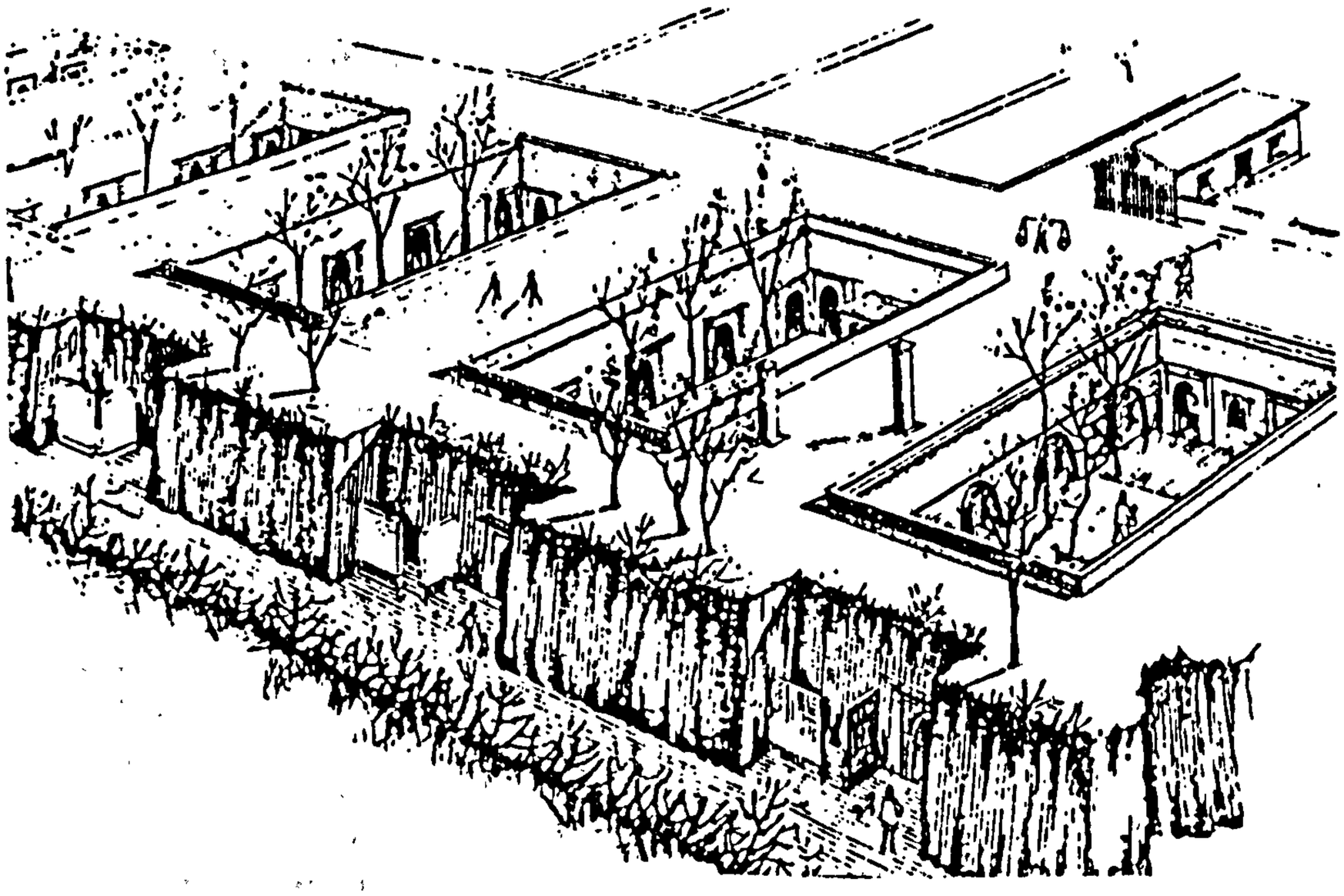
In mainland China, after the arrival of communist ideals, traditional ethics and Confucian teachings are considered vestiges of the feudal system, thus directing the courtyard house to its other fate. Starting from 1956, private houses became common property to which different families were allotted. For example, in both the house of my eldest uncle in Yangchou, Kiangsu province and the house of my father-in-law in Fukien province, several unrelated families have moved in and occupied all the possible residential areas. The courtyards have become at the same time the poultry yard, storage and fuel room and sometimes even the kitchen. Starting from 1950, the government in Peking has also begun to tear down courtyard houses to solve their problem of acute housing shortage. Some courtyard houses have been allocated functions different from the original and have been transformed into kindergartens or restaurants.

Which house style really suits the life styles of modern Chinese society? Chinese architects have been searching for the elements of the courtyard house worth emphasising in new designs and those which should be discarded. In Taiwan, some architects have used the form of the "fire-preventing mountain wall" on high rise buildings or placed the buildings around a traditional Chinese courtyard (eg. Lee Tsu-Yuan in the Ta-An public housing). While this is indeed a new look for high rise buildings, the mere use of a certain "mountain wall" shape neglects its origins as symbolising one of the five elements, thus representing a departure of form from its symbolic meaning and even from its actual function (of preventing the spreading of fires). The placing of an intricately copied Chinese concrete courtyard amidst a group of highrise buildings also cannot imitate the close, intimate relationship between the traditional courtyard and the rooms surrounding it, so that the inhabitants of such buildings cannot enjoy these traditional elements as their forefathers did. Although the building forms may possess their artistic virtue, they are not the spirit of traditional Chinese architecture which should be emphasised. In my opinion, an architect who wishes to design an ideal residential environment for modern-day Chinese needs to possess a thorough grasp of the following three points: Firstly, the architect must understand what the "home" means to the Chinese; secondly, he must pay much attention to the traditional habit of bringing in elements of nature into the residential environment; and thirdly, he must understand the symbol system (Yang Chai Theory) which prevailed from the tradtional period to the present day, and incorporate its elements into the modern-day residence.

Appendix 1 Different styles of Chinese houses

1. Cave dwellings are mainly found in Northern parts of China where loess exists in abundance. Because of the dry weather and shortage of rain water, good conditions prevail for the utilization of the available loess as dwellings. These loess cave dwellings extend horizontally, either along the lower side (or bottom) of cliffs or along the four sides of a square hole dug into the ground to be used as the courtyard, in this case known as excavated dwellings. Neither wood nor stone is used in construction as loess constitutes the whole structure of the cave dwellings, providing the people with economic (inexpensive) materials. Ventilation and sufficient light are provided by an open air courtyard, found in all cave dwellings (1). Figure 3-1-1.

Figure 3-1-1 Cave dwellings in Honan (Chin Ou-Pu, 1983, p 66)



1) See Chin Ou-Pu, 向地下爭取居住空間 ("Obtaining Living Spaces from Below the Ground") in 建築師 (The Architect), No. 15, 1983, p 63; and Study Group on Cave Dwellings, 洛陽黃土窰洞建築 ("Loess Cave Dwellings in Loyang"), in Collected Essays on History of Chinese Architecture, pp 32-35

2. Houses on stilts or pile dwellings have been dealt with in great detail by architectural historians studying their origin and evolution in the history of Chinese architecture. It has been suggested that after the Wei (魏) (AD 220-265) and Chin (晉) (AD 265-420) Dynasties, this type of dwelling became popular in the Central Plains of China (1). This style of domestic dwelling is still found nowadays in the valleys or along the waters of Southern China, with the inhabitants belonging mainly to the Miao (苗) and Pai I (百夷) people (2). See Figure 3-1-2.

Because of the unique structure of this house style, the lower part of the dwelling is open and permits the circulation of air, making this style suitable for a tropical humid climate. At the same time, it provides a high floor lifted above the ground, which protects the inhabitants from both floods and aggressive animals (3).

3. The fort style dwelling has strong ties with religion, as it mainly appears in areas where Lamaism was practised, such as in the Chinghai-Tibet Plateau. The structure is composed of stones which are erected to form a construction of ten to fifteen floors. The facade gives the impression of a fort, hence its name. The building itself is constructed with a flat roof, thick walls and little windows, all serving the defensive functions of

---

1) The Central Plains of China includes the present-day provinces of Kueichou, Eastern Szechuan, Western Kwangsi and Eastern Yünnan. See Lin Huei-chen, 先秦時期干闌式建築研究 ("The Study of Pile Dwellings in Pre-Ch'in Period of China") in Bulletin of Environmental Studies, 1983, p 45-70
2) Miao and Pai I are minorities in the mountainous areas of southwest China
3) See Tai I-Hsüan, 干闌-西南中國原始住宅之研究 (Pile Dwellings-Primitive Dwellings in southwestern China), (Ling Nan Univ., 1948), p 29-30

a fort (1). See Figure 3-1-3.

4. The dwelling of the Mongolian people (yurt) is a tent with the qualities of portability and lightness, which are vital to the life style of the nomads. The normal plan of the yurt is round with a diameter of three to four metres, with the centre of the circle being a stove and a chimney surrounded by the areas for living, sitting and resting. The walls of the yurt consist of a wooden structure covered by blankets which are tied to the structure on the outside (2). See Figure 3-1-4.

5. Boat houses or dwellings on water, usually appear along the shores of Kuangtung province. The owners of the boat houses are people who are not permitted to reside on land by local laws. In other words, throughout their whole life, they must live in these boat houses. Although this housing style is not commonly found, it possesses its distinct characteristics and merits classification in a group of its own (3).

---

1) See Chen Yao-Tung, 藏族建築簡介 ("Introduction to Tibetan Architecture") in Collected Essays on the History of Chinese Architecture, Vol. 2, pp 159-160; and Hsu Shang-Chih, Feng Liang Tan, Pan Yun-Chi, Chou Chien-Nung, 雪山草地之藏族民居 ("Tibetan Houses on Snow-covered Mountains and Highlands") in Collected Essays, Vol. 2, pp 161-173
2) See Liu Tun-Chen, 中國古代建築史 (History of Ancient Chinese Architecture), (Peking : Chinese Architectural Industry Publ., 1978), p 336
3) See Liu Chih-Ping, Types and Structural Forms in Chinese Architecture, p 31

Figure 3-1-2 Development of houses on stilts (pile dwellings)
(from Yang Hong-Hsun, 1977, p 114)

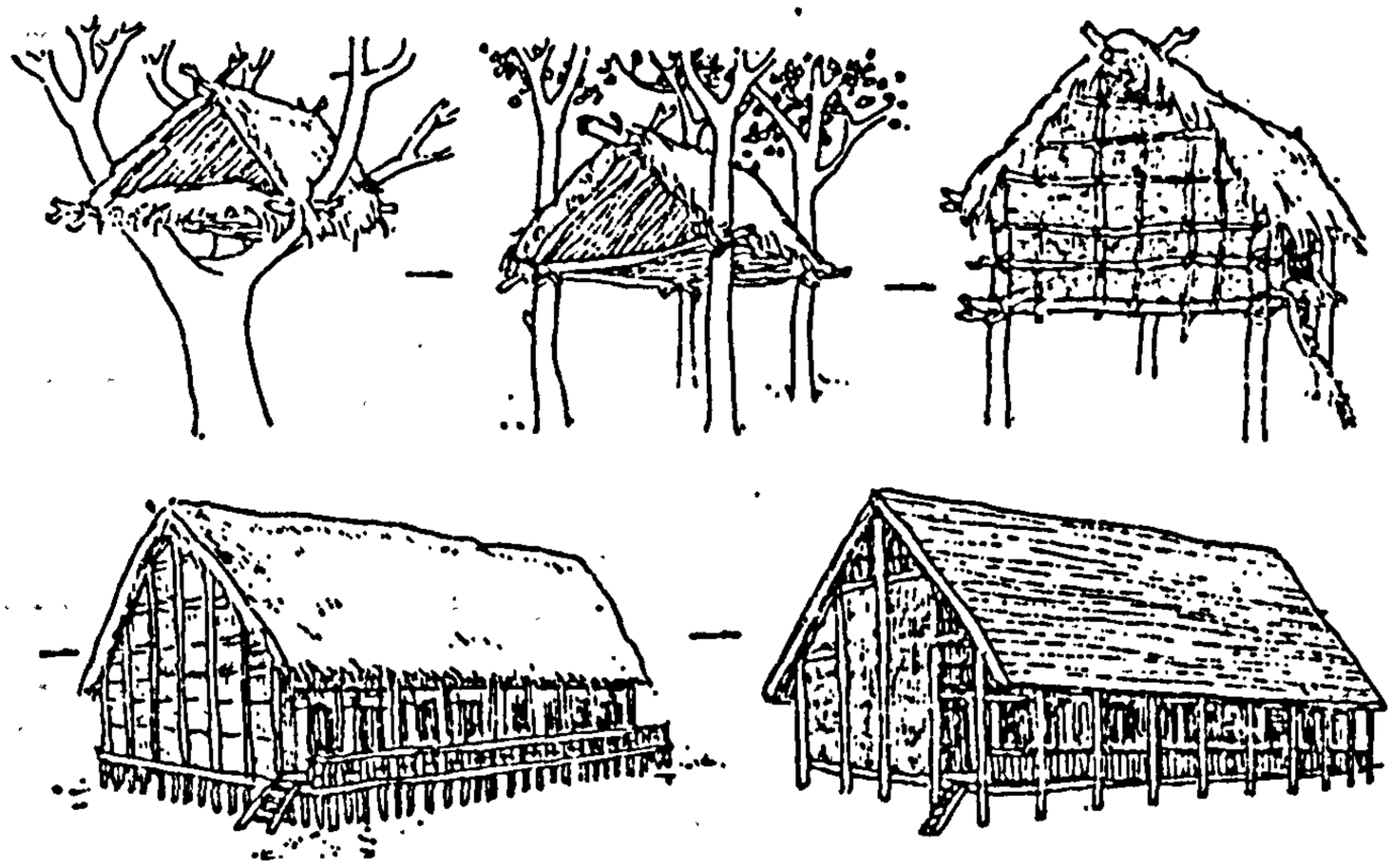
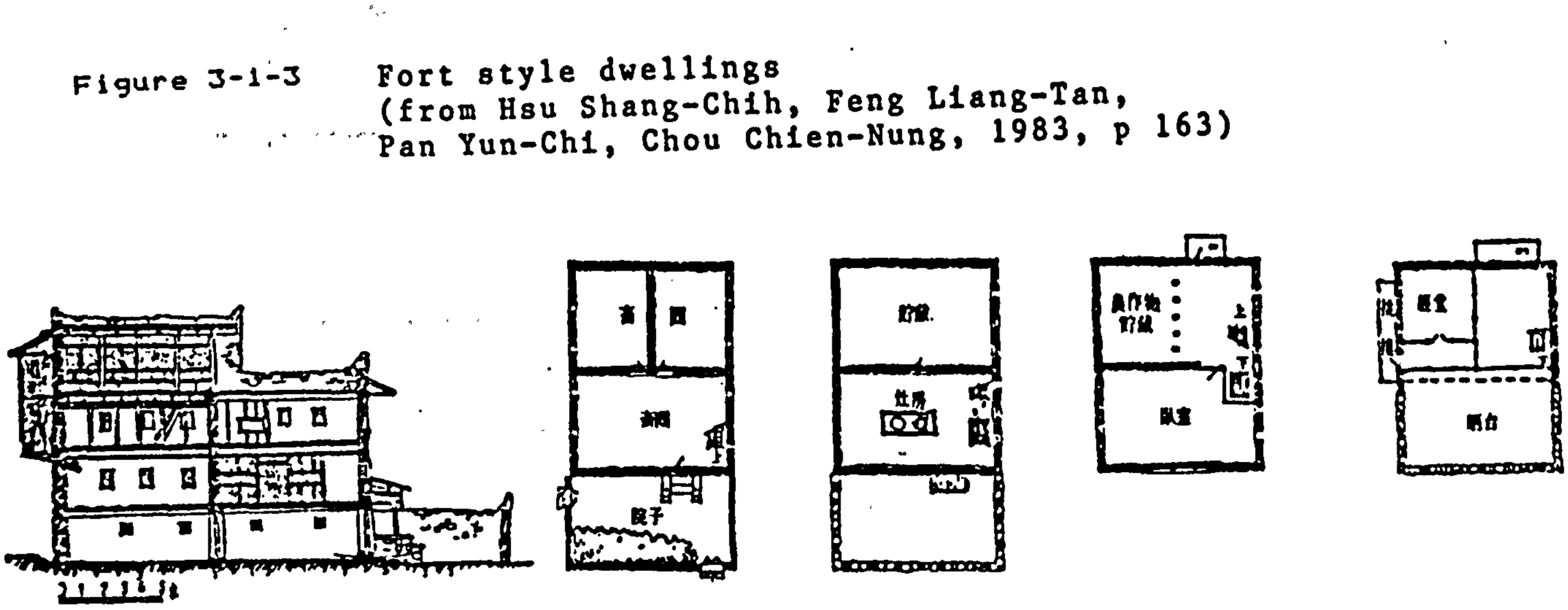
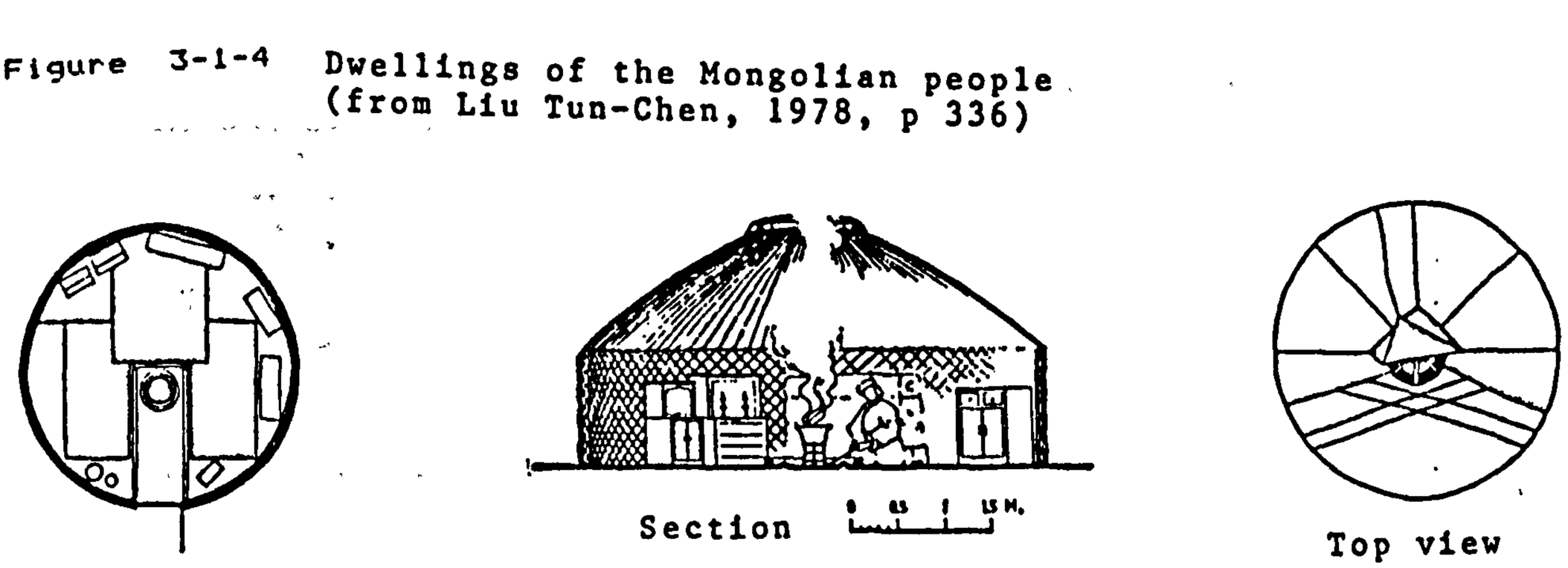


Figure 3-1-3 Fort style dwellings
(from Hsu Shang-Chih, Feng Liang-Tan,
Pan Yun-Chi, Chou Chien-Nung, 1983, p 163)



Section Ground floor First floor Second floor Third floor

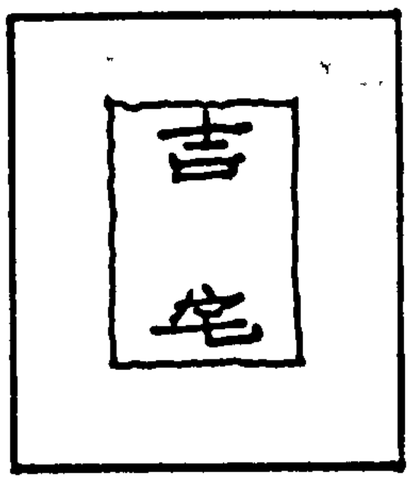
Figure 3-1-4 Dwellings of the Mongolian people
(from Liu Tun-Chen, 1978, p 336)



Plan Section Top view

Appendix 2 Examples of auspicious and inauspicious sites taken from Ten Books of Yang Chai

Type I. A selection of 6 cases out of 68 figures

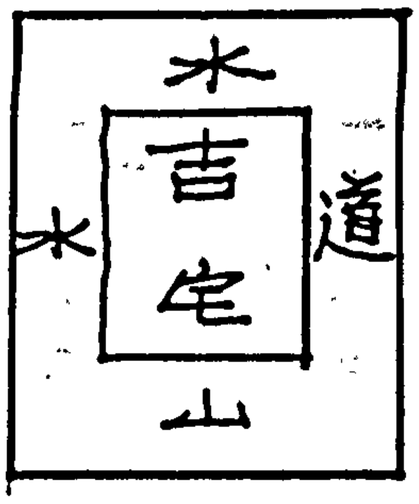


(A) Characters on the figure: "a lucky dwelling"

* This is the kind of place sought by all people, and talented offsprings will be produced here.
* Even the common people who live here shall become prosperous.
* The descendents will become high officers in the government.
* Glory will come to this family and even their relatives will gain from it.

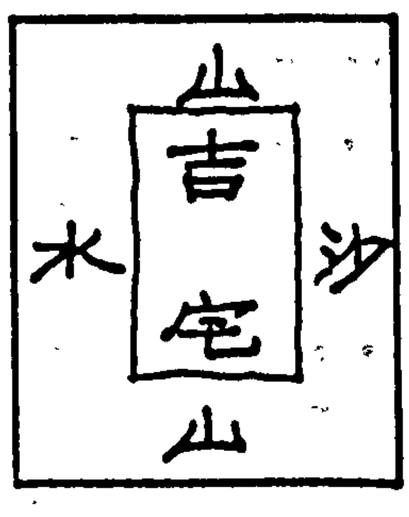
(B) Characters on the figure: "narrow in front, a lucky house"

* Narrow in front, wide in the back, is a peaceful place for dwelling.
* Wealth, honour, peace, prosperity and many children.
* Prosperity and fortune will increase extensively.
* Gold, pearls, valuable treasures will fill the house.



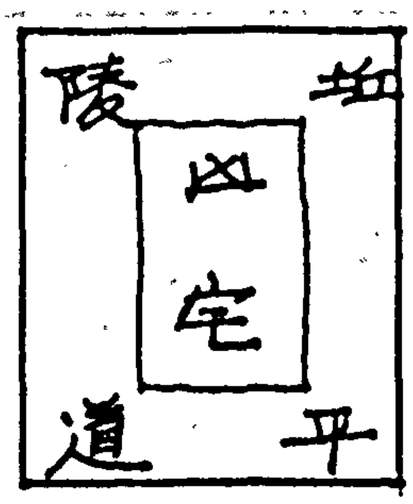
(C) Characters on the figure: "Path on the right, water on the left, water in front, mountain in the back, a lucky house".

* Red bird, black tortoise, blue dragon, and white tiger are all present at this site.
* Men will be rich and honourable, women will be virtuous and intelligent.
* High rank will come without hard work.
* The children and the grandchildren will receive good luck for a long time.



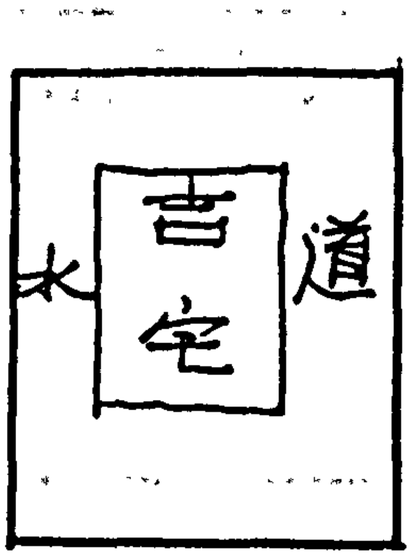
(D) Characters on the figure: "river on the left, mountain in front and back, mound to the right, a lucky dwelling

* This house has a river on the left side.
* The descents of the family will gain fortune, luck, and honourable reputation.
* Crops will always fill the property.
* The children and the grandchildren will be more clever than their ancestors.



(E) Characters on the figure: "grave-mound (front right), hillock (front left), path (back left), flat ground (back right), unlucky dwelling.

* There are grave-mounds and hillocks at the front of the house.
* A path at the east side of house rear leads to far away.
* Opening the main gate at Sun (trigram of south east) will bring in wealth.
* It is unsuitable to have a path at Tui (trigram signifying west) because it will bring problems to the children.

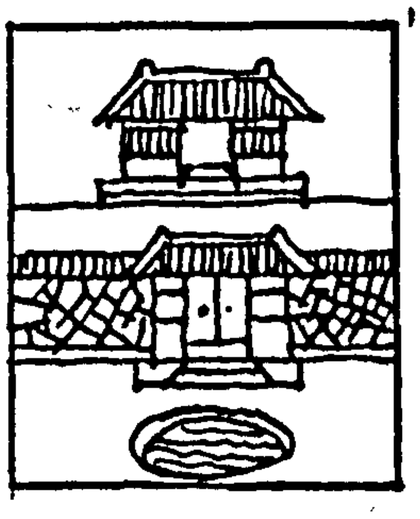


(F) Characters on the figure: "a lucky dwelling"

* Water flows on the east side of the house, the great road passes the west side of the house, both lead to favorable circumstances.
* Why do richness and honour come together?
* Beacuse the right side is the white tiger and the left side is the blue dragon.

Type II. A selection of 9 cases out of 64 examples. I used "judgement and explanation" (JE) to express the meaning of Tuan (断) and Yueh (曰) in the following descriptions.

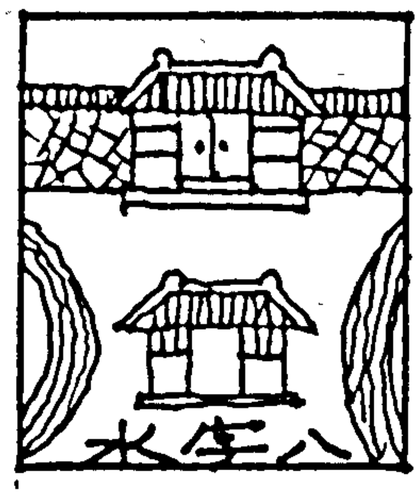
(G) JE as follows:



* This ming-tang will bring tragedy to the family and the mother will become a widow.
* The youth will catch eye disease, the women will have a miscarriage or even die.
* Some individuals of the family will catch the wasting breath of consumption.
* Water flowing in front of the door will harm posterity.

(H) Characters on the figure: "under the mound; a sharp mound" and JE:

* If there are mounds with this shape in front of the main gate, the family will produce soldiers, thieves or those whose jobs require walking at night. (These were not considered honourable jobs in ancient China).
* Members of the family will catch eye disease and will be recalcitrant.
* The brothers will not want to stay in the same house, and when they leave, the old father will starve to death.



(I) Characters on the figure: "in front of the gate: flowing waters shaped like ノ乀 (Chinese character for eight), JE as follows:

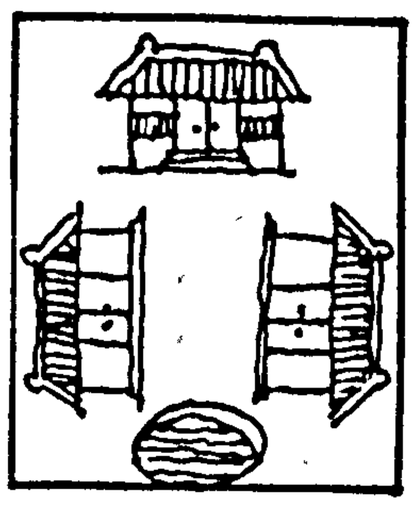
* Flowing water shaped like (8) in front of the house - the inhabitants will have to sell their land or farm and leave their motherland.
* The women in this house will be lewd and libidinous. They will not need a match-maker to arrange their marriages.
* There will be some descendents who do not wish to stay with their seniors and will try to run away from the family.

(J) Characters on the figure: "beside the road", "straight road".

* The house has a straight road in front of it, meaning that there are no landlords in the family.
* There must be some disabled people in this family, because the road represents the dark arrow of Ch'i which always hurts people or animals.

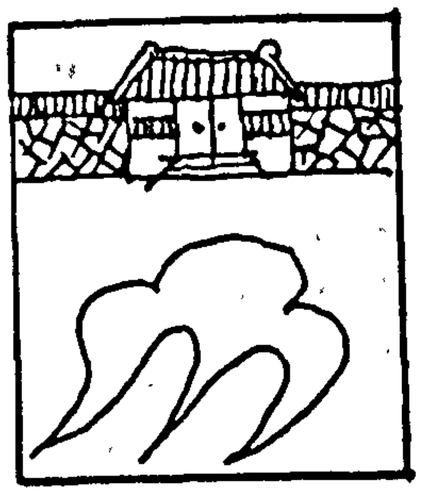
(K) JE as follows;

* The dying of the tree trunk is difficult for man to recognise, and a harmful direction, P'o Chün is not visible to the people.
* The living are separated. Death in foreign lands. They do not want to return to their hometown. Tears will always dampen the faces of the widowed mothers.



(L) JE as follows;

* This house was arranged as the character (品), it is suitable as a school, office or for a family.
* Prosperity and fortune are on the rise. Value of land will increase. An honourable child will earn a good reputation which will spread and reach the capital of the emperor.

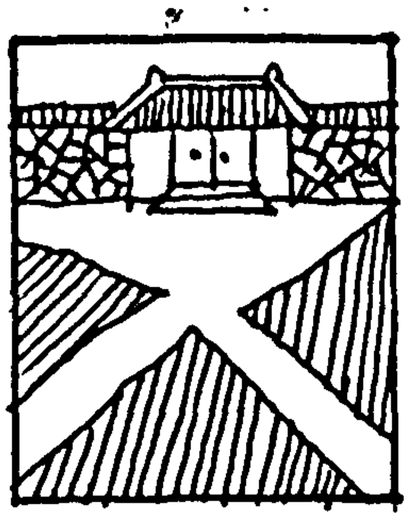


(M) JE as follows;

* The form of the land in front of the house is similar to one of the nine flying stars "P'o-Chün". The star does not give rise to the military man as it should. It gives rise to the workmen.
* Spoiled corpse. The people will die in foreign places, not in the hometown, the family will recede and fall. Orphans and widows will come to this family, since there will be two clans in these houses.

(N) Characters on the figure; "under the stream: jade belt water" and JE as follows;

* If water flows in the shape of the jade belt in front of the house, a high officer will be produced from this house.
* Many generations of descendents will be scholars. The house will be brightened by their glory, wealth and honourable reputations.



(O) Characters on the figure; "in front of the gate, fire of frying" and JE as follows;

* Mounds like these in front of the gate mean its left fire will fry and the elder brother will die. The right fire will fry the younger brother to death, caused by the arrow-shaped roads facing the house entrance.

It is apparent from these figures that all the components of the cosmic framework were taken into consideration in finding an auspicious site. In Example (A), the ideal rectangular shape of the house is introduced to the common people. Example (B) shows another shape which is also considered a good container of Ch'i, wide in the front and narrower towards the back. Examples (C), (D) and (F) take the four spiritual animals into consideration. Example (E) uses the trigrams to indicate the proper orientation. Natural or artificial elements like those in front of the house in Examples (G), (H) and (I) are obstacles and prevent the flow of lively Ch'i into the house. Examples (J) and (O) warn of the arrow-like roads which bring harmful Ch'i directly to the house. Examples (K) and (M) mention the harmful influences of one of the nine flying stars. Example (L) shows buildings which form the ideal container of Ch'i.

Appendix 3 The Chinese calendar

The Chinese lunar year calander can be presented by two kinds of cycles, the denary and the duodenary cycles. Dates in Chinese history were customarily recorded in terms of the years of the reigning monarch. But in Han times an additional system of cyclic signs for designating years, days and hours was in use. The origin of these signs, one a set of ten, known as the "ten heavenly stems" (天干), another of twelve called the "twelve earthly branches" (地支), remains until today a great mystery, although it is apparent that they are very ancient. (see W. Theodore de Bary (ed.), Sources of Chinese Tradition, Vol I, New York : Columbia University Press, 1960, pp 205-206, for a full treatment on this subject)

These signs and their associations are listed as follows;

Five elements	Ten stems	Twelve branches	Directions
Wood	Chia	Tzu	N
	I	Ch'ou	NNE
Fire	Ping	Yin	ENE
	Ting	Mao	E
Earth	Mou	Ch'en	ESE
	Chi	Ssu	SSE
Metal	Keng	Wu	S
	Hsin	Wei	SSW
Water	Jen	Shen	WSW
	Kuei	Yu	W
		Hsü	WNW
		Hai	NNW

The ten heavenly stems mark the position of the constellations at the beginning of the new year, and stand for the numerals from 1 to 10, or grouped in Yin-Yang pairs, stand for the five elements. The twelve Earthly Branches give specific information about time or place. The branches are more related to the Earth Plate of the compass, which is divided into tweleve sections with each division having 30 degrees, indicated by these 12 branches respectively. Furthermore, the branches also denote the twelve months of the year and the twelve double-hour divisions of the day. In fact, branches have come to be used as time markers for anything involving a fraction of twelve, such as the Great year, the duration of Jupiter's revolution round the sun, of twelve ordinary year. So that an hour, a month or eaven a year can all be designated by one of the twelve Earthly branches. The twelve Earthly branches interacting with the ten Heavenly Stems become a sexagenary cycle.

Originally, these two sets of signs were combined to form a cycle of sixty bi-nominal terms used to designate a cycle of sixty days. Thus the first two days of spring are Chia (甲) and I (乙), which means that the first term in the bi-nomial designation of the first two signs Chia and I. The first two days of summer will be Ping (丙) and Ting (丁). This cycle of sixty bi-nomial terms was then used to designate a cycle of sixty years.

Since every one hundred eighty years is a Big cycle of Heaven and consists of three subdivisions - Shang Yuan, Chung Yuan and Hsia Yuan, it was used by the ancient Chinese to find the personal palace of fortune and virtue (Fu Yuan). The system of association between the sexagenary cycle and the eight trigrams has been described in detail in the male and female as each having their own principles (see Ten books of Yang Chai, p.59). The calculation of the Fu Yuan of a male person (Yang) is as follows; if he is born in the second year of the Shang Yuan, he is categorised into Li palace and his personal Kua is Li trigram. If he is born in the third year, then he belongs to K'en palace. The order of the eight trigrams for the male is Li, K'en, Tui, Ch'ien, Kun, Sun, Ch'en, Kun, Kan. The above order shows the fifth position as a repeated Kun trigram. Every nine years is a cycle, and afterwards, it starts from Li again. As for the female (Yin), the order for calculation is as follows: Kan, Kun, Ch'en, Sun, (Ken), Ch'ien, Tui, Ken, and Li. Similar to the male order, if she is born in the first year of Shang Yuan, she belongs to Kan; Ch'ien is the trigram for the second year, and Tui for the third. This method not only provided the Chinese with a method of reckoning years and people's ages; the Fu Yuan of a person became a potent factor in the arrangement of his residence.

Appendix 4 Door gods of different dynasties

Two of the door gods during the Warring States were Shen Tu (神荼) and Yü Lei (鬱壘), (see Figure 2-3-26 a.) legendary brothers who were said to have overpowered many troublemaking ghosts on Tushuo Mountain and fed them to tigers. The History of the Former Han mentions two other door gods Cheng Ch'ing (成慶) and Ching K'o (荆軻); the former a brave hero whose portrait always showed him with a long sword, effective at frightening away ghosts (see Figure 2-3-26 b.), while the latter was a would-be assassin of the tyrannical First Ch'in Emperor Ch'in Shih Huang, considered a hero by the populace.

In the T'ang Dynasty, door gods represented the generals Ch'in Ch'iung (秦瓊) and Weichih Chingte (尉遲敬德), guards to the emperor T'ai Tsung. They were also popularly known as White Face and Black Face. (See Figure 2-3-26 c.) Another historical figure from the T'ang Dynasty represented as door god was Chung K'uei, (鍾馗), who found his calling in the elimination of ghosts and spirits. (See Figure 2-3-27 a.) The generals Kuan Yu (關羽) (of ruddy face fame) of the Three Kingdoms Period (220-265) and Yueh Fei (岳飛) of the Northern and Southern Sung dynasties (960-1279), immortalised by an emperor in the Ming Dynasty as military gods, were also portrayed as door gods in honor of their loyalty and morality, along with Wen T'ien-hsiang (文天祥), the last prime minister of the Sung Dynasty who was immortalised as a civilian god (as opposed to military god) (1). (See Figure 2-3-27 b)

---

1) See Ying Shao, Feng Su-Tung (An Understanding of Customs), Vol. 8, p 5, Ching Dynasty; Chung Ling, Ching Chu Sui Shih Chi (Record of Events during the State of Chu), p 22-23; Sinorama, March 1986, p 109

Figure 2-3-27 a. Two versions of Chung K'uei
by Yang Liu Ching

(from Emily Wang, "New Year Prints" in Free China Review, Vol. 35, No. 3, 1985, p 44)

Figure 2-3-26 a. Figures of Shen Tu and Yü Lei

(from Else Unterrieder, Glück ein ganzes Mondjahr lang, p 96)

Figure 2-3-26 c. Generals Ch'in Ch'iung and Weichih Chingte

(from Else Unterrieder, Glück ein ganzes Mondjahr lang, p 129 and 131)

PAGE NUMBERING AS ORIGINAL

Appendix 5 Explanations of auspicious Chinese decorations

1. Animal motifs

Lung 龍 (Dragon) - An imaginary animal created by the Chinese as the symbol of a mysterious power which can run, fly, hide in water, and be or go wherever it pleases. Lung represents infinite power.

Feng 鳳 (Phoenix) - An imaginary king of birds which may have derived from a peacock or less poetic, an ostrich, one of the four spiritual creature.

Ch'i-lin 麒麟 - A spiritual creation which may have originated from the giraffe, although it is now shown as a strange animal with the head of a dragon. Ch'i-lin, which does not eat meat and walk over grass, is used to represent the animal of kindness.

Hsüan-wu 玄武 (Tortoise) - One of the four spiritual creatures (the other three being the dragon, phoenix and ch'i-lin), was used as the base for stelae. It is also placed side by side with a crane, both symbolizing longevity.

Pien-fu 蝙蝠 (Bat) - The second character 'fu' corresponds phonetically to 'fu' 福 (good fortune).

Lu 鹿 (Deer) - Corresponds phonetically to 'lu' 祿 (prosperity).

Yang 羊 (Goat) - Formerly shared the same character as 'hsiang' (good luck).

Feng 蜂 and Hou 猴 (Bee and Monkey) - Corresponds phonetically to 'feng-hou' 封侯 (to be installed as a feudal lord).

Shih 獅 (lion) - Chosen for its bravery.

K'ung-ch'üeh 孔雀 (Peacock) - Chosen for its beauty.

Ho 鶴 (Crane) - Associated with longevity.

Ch'üeh 鵲 (Magpie) - Associated with happiness.

Ying 鶯 (Oriole) - Associated with friendship.

Yüan-yang 鴛鴦 (A pair of Mandarin Ducks) - Associated with matrimonial love.

Shou-tai-niao 綬帶鳥 (A cordon bird) - Associated with good luck.

Li 鯉 (Carp) - Corresponds phonetically to 'li' 利 (profit).

Nien 鮎 (Catfish) - Corresponds phonetically to 'nien' 年 (one's age).

Yü 魚 (Fish) - Corresponds phonetically to 'yü' 玉 (jade), or 餘 (superabundance).

Chin-yü 金魚 (Goldfish) - Corresponds phonetically to 'chin-yü' (precious objects such as gold and jade).

2. Plant motifs

Chü 菊 (Chrysanthemum) - Represents with strength and tolerance.

Pai-ho 百合 (Lily) - Represents purity.

Ch'a-hua 茶花 (Camellia) - Represents elegance.

Lan 蘭 (Orchid) - Represents pathetical beauty.

Hai-tang 海棠 (Caval vine) - Represents nobility.

Fu-jung 芙蓉 (Hibiscus) - The first character 'fu' corresponds phonetically to 'fu' 富 (wealth).

Shui-hsien 水仙 (Narcissus) - The second character hsien also designates Taoist immortals.

Kuei 桂 (Sweet Osmanthus) - Represents goddess of the moon.

Mu-tan 牡丹 (Tree Peony) - Represents great wealth and high rank.

Hsing-hua 杏花 (Apricot Flower) - Symbolises promotion in rank.

Sung 松 (Pine-tree) - Represents longevity or perpetual youth.

Chu 竹 (Bamboo) - Represents righteousness.

Mei 梅 (Plum Blossom) - Represents unusual endurance (as the flower blossoms in the coldest climates)

Ho-lien 荷蓮 (Lotus) - Signifies the joy of having many sons.

Ling-chih 靈芝 (Fomes Japonicus) - Regarded as a plant with super-natural powers which brings good luck.

Hu-lu 葫蘆 (Calabash) - Represents a container of heavenly medicine.

Ta-chü 大橘 (Mandarin orange) - Phonetically similar to 'ta-chi' 大吉 (great propituousness).

P'i-pa 枇杷 (Loquat) - Considered a fruit of good luck.

Shih-liu 石榴 (Pomegranate) - Symbolises the blessing of having many children.

T'ao 桃 (Peach) - Represents everlasting youth; is believed to possess the virtue of suppressing demons.

3. Motifs based on objects or phenomena of daily life

Kwan 冠 (Hat) - Represents high official rank.

Shan 扇 (Fan) - Corresponds phonetically to 'shan' 善 (benevolence).

P'ing 瓶 (Vase) - Corresponds phonetically to 'ping' 平 (peace).

Chi 戟 (A two-pronged spear or lance) - Corresponds phonetically to 'chi' 吉 (good luck).

An 鞍 (Saddle) - Corresponds phonetically to 'an' 安 (security).

Ching 磬 (Set of chimes) - Corresponds phonetically to 'ching' 慶 (celebration).

Wan 卍 (Ten Thousand) - Represents 'ten thousand blessings'.

Shou-shih 寿石 (Stone) - Represents longevity.

Yün-wen 雲紋 (Cloud Pattern) - Stands for good omen.

Lei-wen 雷紋 (Lightning Pattern) - Suggests unbroken continity.

Hsüeh-hua 雪花 (Snow flower) - Represents purity.

Circle 圓 - Represents perfection.

Octagon 八角形 -Represents harmony.

Scroll 書卷 -Suggests wisdom.

Coins 双钱 -Represents wealth.

Jade 玉牌 -Represents superabundance.

Japonicus 如意 -Represents easy circumstances.

Apart from these motifs and patterns adorning Chinese houses, we commonly find auspicious characters, either individually or combined with others, forming part of latticed windows or used as decorations on walls and doors. The most popular characters are Fu 福 (good fortune), Lu 祿 (properity), Shou 寿 (longevity), Hsi 喜 (happiness) or Shuang-hsi 双喜 (double happiness), Fu 富 (wealth), Kuei 貴 (nobility), Chi 吉 (auspiciousness).

Certain popular phrases were used as titles of writings and paintings to suggest good luck. They are:

Chao-ts'ai chin-pao 招財進寶 (receiving wealth and treasures). Represented by a combination of the four words.

Chu-pao p'ing-an 竹報平安 (Bamboos bring the safety). Represented by bamboos, firecrackers, vase, and saddle.

Szu-chi p'ing-an 四季平安 (Safety in the four seasons). Represented by persimmon. cock, vase, and saddle.

Li-yao lung-men 鯉躍龍門 (Carp leaps over the dragon-gate). Symbolises promotion in official rank.

Ho-chi chi-hsiang 和氣吉祥 (Good-naturedness leads to propitiousness). Represented by clouds, mandarin orange, and goat.

Wu-lu chin ts'ai 五路進財 (Wealth come from five directions). Represented by five gods bringing treasures from five different directions. (plate 3-3-44)

Huang-chin wan-liang 黃金萬兩 (Ten thousands taels of gold). Symbolises the treasures of the family.

T'ien-kuan tz'u-fu 天官賜福 (Heavenly officers bring fortune). Symbolises a promising future.

Chi-ch'ing yu-yü 吉慶有餘 (Abundance of luck) Represented by a fish and a spear.

Fu-kuei ch'ang ch'un 富貴常春 (Everlasting wealth and honour). Represented by a tree growing from a bowl of wealth, bearing "fruits" of money.

Man-t'ang fu-kuei 滿堂富貴 (The ancestral hall filled with wealth and honour). Represented by the hai-t'ang (aronia) and the tree peony.

Chin-yü man-t'ang 金玉滿堂 (The ancestral hall filled with gold and jewels). Represented by goldfish.

Wan-shih ju-i 萬事如意 (Ten thousand things in accordance with one's desire). Represented by the wan nien-ch'ing (Rhodea japonica) - or - and the fomes japonicus.

Fu-shou ju-i 福壽如意 (Good fortune and longevity as much as one wishes). Represented by bats, peach and the fomes japonicus.

Pai-shih ta-chi 百事大吉 (Success in one hundred things). Represented by the lily, persimmon and mandarin orange.

Jung-hua fu-kuei 榮華富貴 (Luxury, riches and honour). Represented by the hibiscus and the tree peony.

Chi-hsiang ju-i 吉祥如意 (Happy according to one's wishes). Suggested by Mandarin orange, goat and ju-i.

Sung-hao hsia-ling 松鶴遐齡 (Pine and crane; long life). Represented by a pine-tree, a crane and the fomes japonicus.

PAGE NUMBERING AS ORIGINAL

Appendix 6 Decorations found in the Lin Family Compound

Animal motifs :

Dragon - on the "fire preventing mountain walls" of the old compound (See Figure 2-3-40 a) and on the screen in the Lai Ching Pavilion in the garden. (See Figure 2-3-40 b).

Lion - on the "fire preventing mountain walls" of the old compound (See Figure 2-3-41)

Bat - in the wall in front of Ting Ching Hall (See Figure 2-3-42 a), on the ceiling in the first floor of Lai Ching Pavilion (See Figure 2-3-42 b), in a wall in front of the same pavilion (See Figure 2-3-42 c) and on the ceiling of Mei Hua Kiosk (See Figure 2-3-42 d).

Plant motifs :

Peach - in the wall in front of Kuan Chia Pavilion (See Figure 2-3-43 a) and in the wall surrounding Hsiang Yü House (See Figure 2-3-43 b).

Bamboos - On the side wall of Chi Ku Shu House (See Figure 2-3-44 a), in the east ear room of Fang Chien Chai (See Figure 2-3-44 b), in the back wall of Lai Ching Pavilion (See Figure 2-3-44 c) and on front wall of Kuan Chia Pavilion (See Figure 2-3-44 d).

Calabash - Forming the window of the main room of Ting Ching Hall (See Figure 2-3-46)

Plum blossom - On the ceiling of Mei Hua Pavilion (See Figure 2-3-42 d).

Motifs based on geometrical forms and objects or phenomena of daily life :

Circle - Formed by bricks in the wall of the old mansion (See Figure 2-3-48 a), a circular door in front of Kuan Chia Pavilion

(See Figure 2-3-48 b).

Eight trigram (octogonal shape) - Formed by bricks in the wall of the old mansion (See Figure 2-3-49 a), in the wall in front of Kuan Chia Pavilion (See Figure 2-3-49 b) and on the roof of the kiosk in Jung Yin Pond (See Figure 2-3-49 c).

卍 - Formed by bricks in the wall of the old mansion (See Figure 2-3-50 a), on the wall of Yueh Po Shui Pavilion (See Figure 2-3-50 b), forming the window of the main room of Ting Ching Hall (See Figure 2-3-50 c), as well as the base of columns in the same room (See Figure 2-3-50 d).

Vase - Found in the wall of Lai Ching Pavilion (See Figure 2-3-51 a), the window on the long wall Heng Hung Wo Yueh (See Figure 2-3-51 b) and as a doorway in Kuan Chia Pavilion (See Figure 2-3-51 c).

Fan - Found on the front wall of Fang Chien Chai (See Figure 2-3-52 a), on the wall of Yueh Po Shui Pavilion (See Figure 2-3-52 b).

Coins - in the wall in front of Kuan Chia Pavilion (See Figure 2-3-43 a) and in the window of Ting Ching Hall (See Figure 2-3-53)

Clouds - On the crossbeams of the central room of Lai Ching Pavil-ion (See Figures 2-3-54 a), on the "fire preventing mountain walls" of the new compound (See Figure 2-3-54 b).

Jade - on the "fire preventing mountain walls" of the old and new compounds (See Figure 2-3-55)

Scrolls - On the wall in front of Ting Ching Hall (See Figure 2-3-56).

Japonicus - On the purlins and crossbeams in Pi I Guesthouse (See Diagram 2-3-45).

Figure 2-3-40 a Dragon - on the "fire preventing mountain walls" of the old compound
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 70)

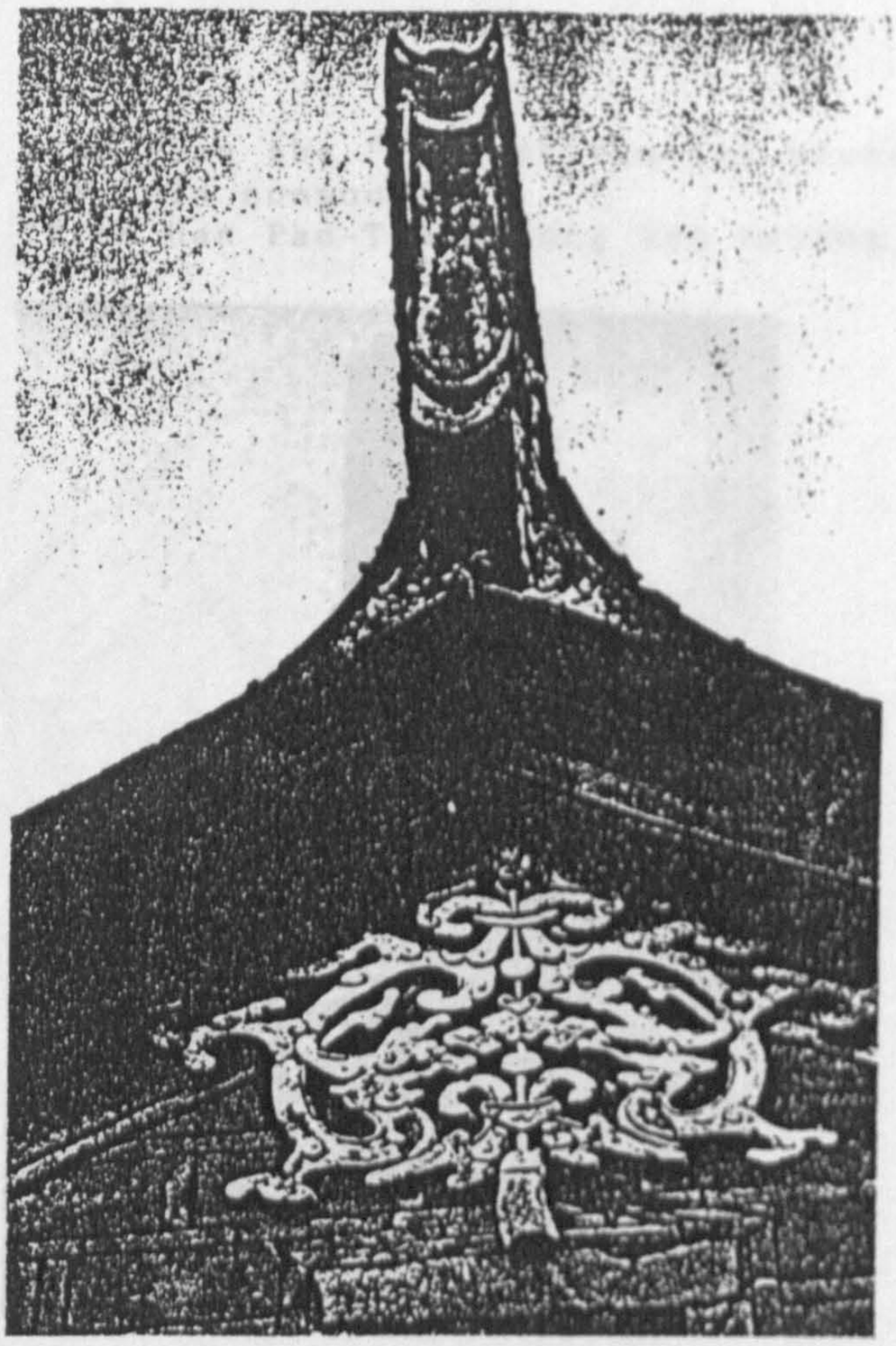


Figure 2-3-40 b Dragon on the screen in the Lai Ching Pavilion in the garden.
(from Studio of environmental planning and design National Taiwan University, 1981, p 234)

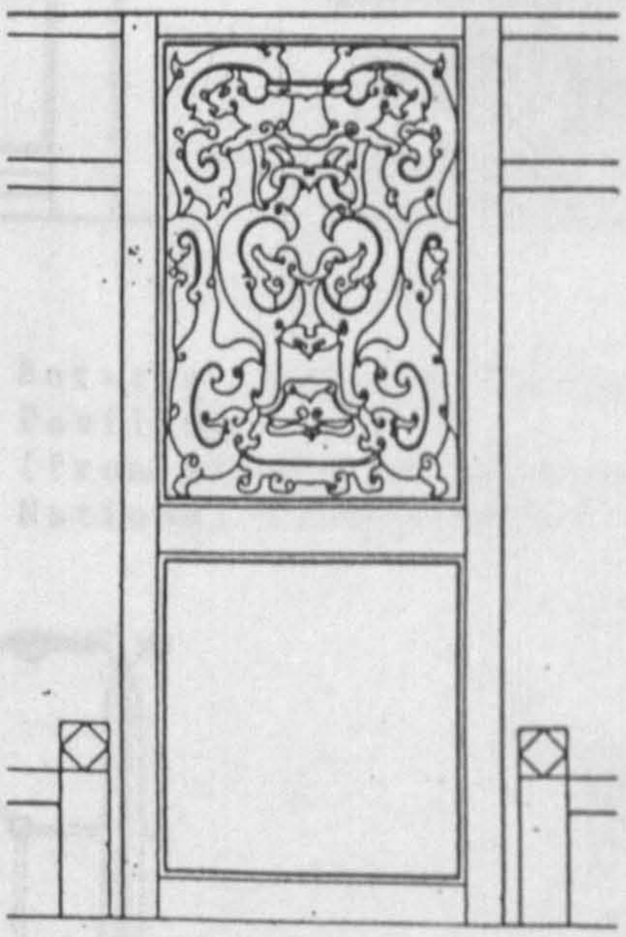


Figure 2-3-41

Lion - on the "fire preventing mountain walls" of the old compound
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 70)

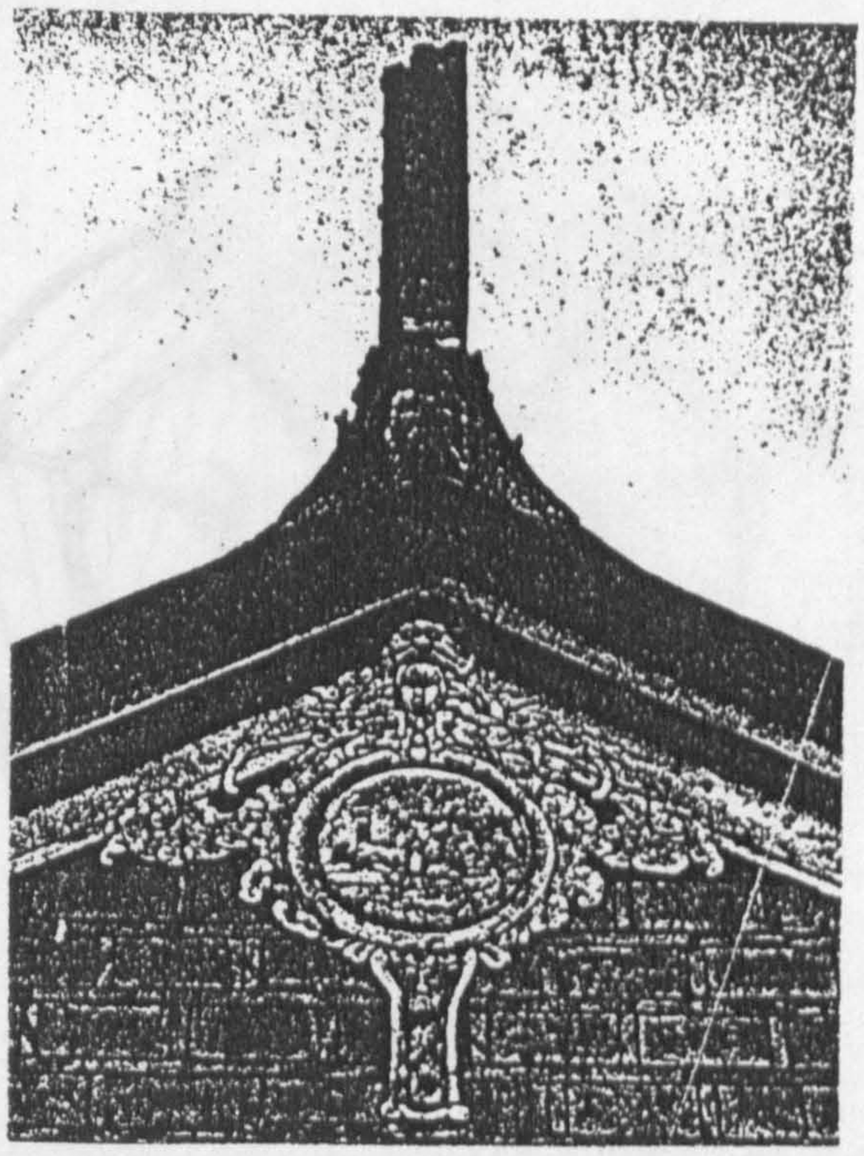
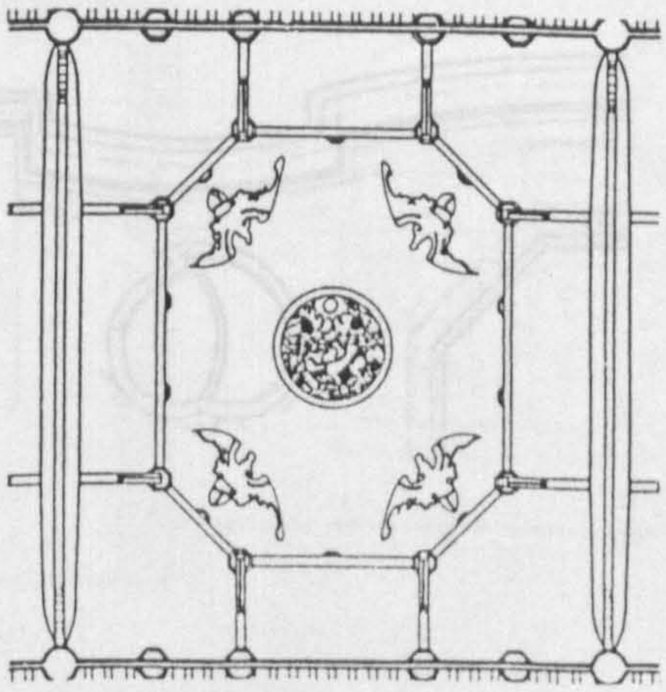


Figure 2-3-42 a

Bat - in the wall in front of Ting Ching Hall
(from Studio of environmental planning and design, National Taiwan University, 1981, p 340)

Figure 2-3-42 b

Bat-the ceiling in the first floor of Lai Ching Pavilion
(from Studio of environmental planning and design, National Taiwan University, 1981, p 192)



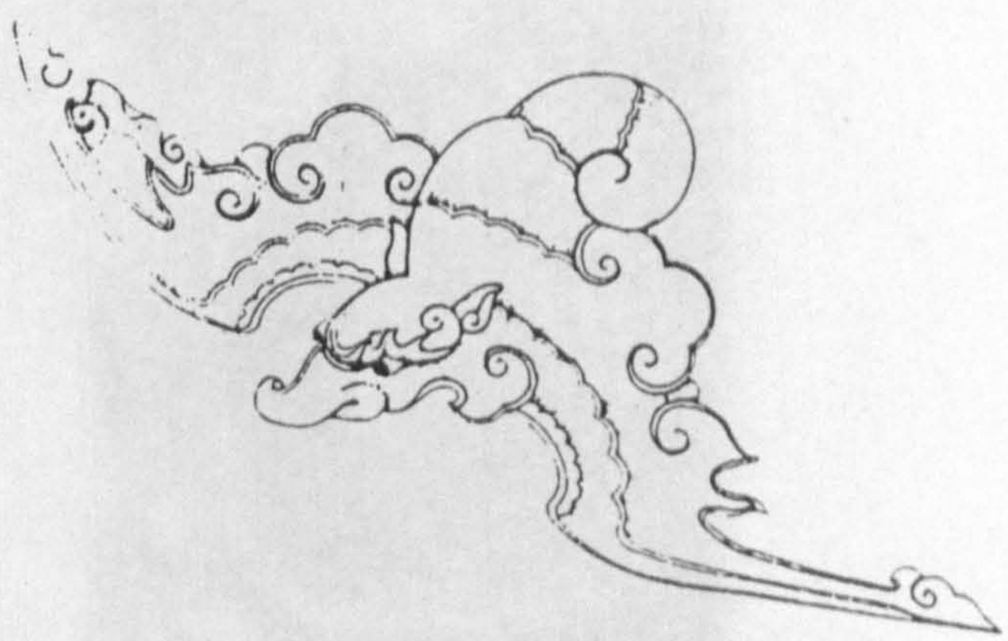


Figure 2-3-42 d Bat-the ceiling of Mei Hua Kiosk
(from Studio of environmental planning and design,
National Taiwan University, 1981, p 377)

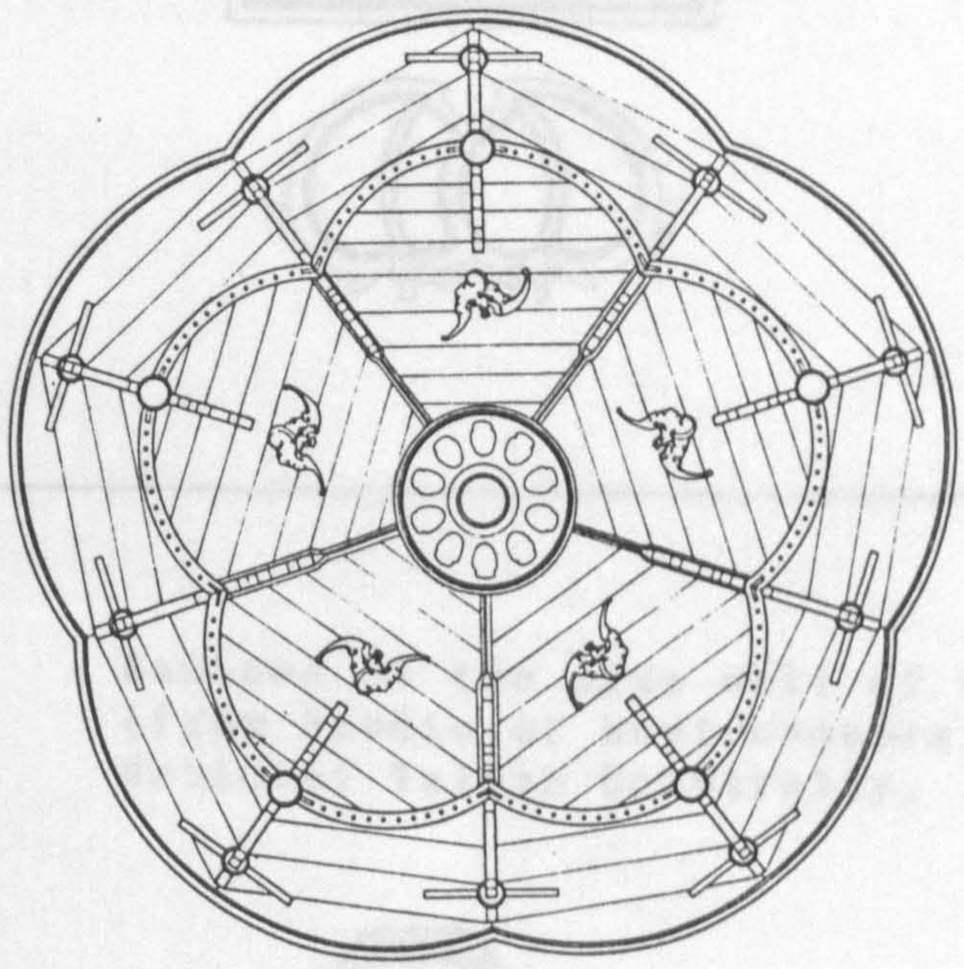
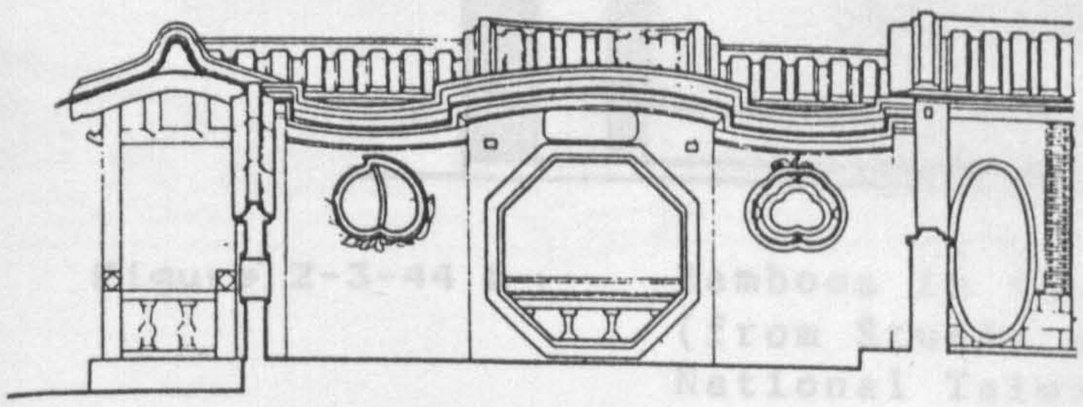
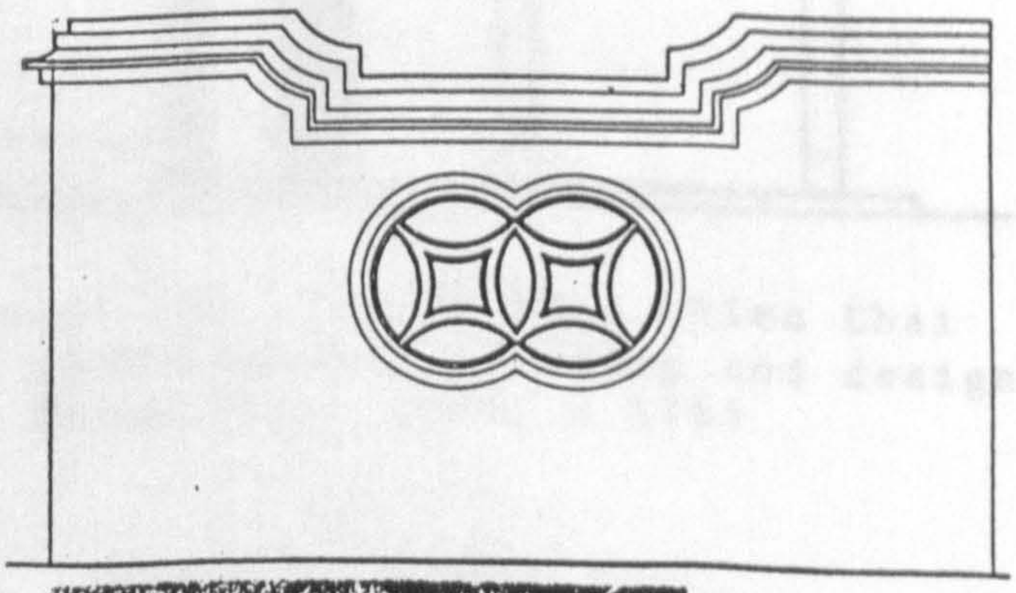
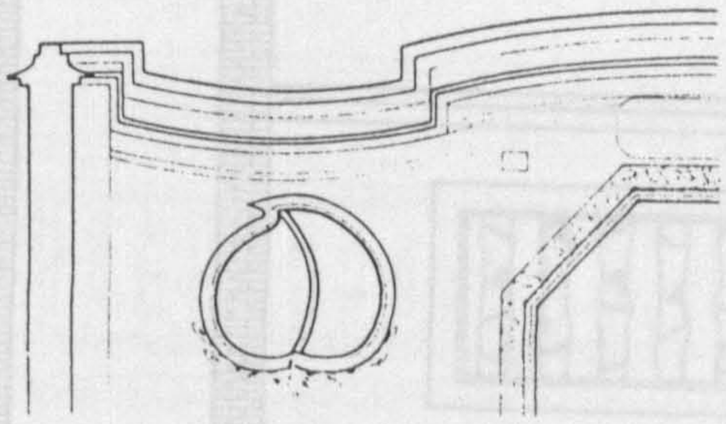


Figure 2-3-43 a Peach in the wall in front of Kuan Chia Pavilion
Coins - in the wall in front of Kuan Chia Pavilion
(from Studio of environmental planning and design,
National Taiwan University, 1981, p 262)







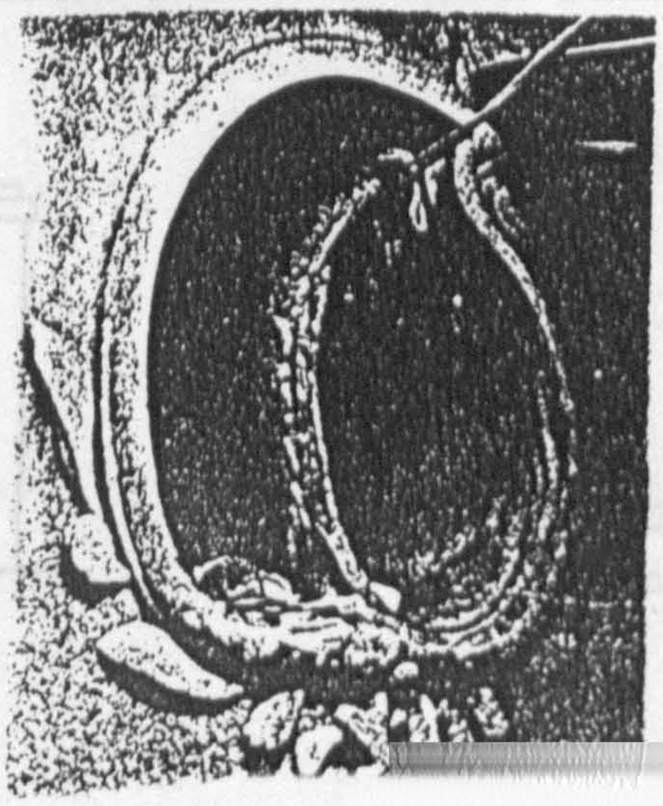


Figure 2-3-43 b　　Peach in the wall surrounding Hsiang Yü House
(from Studio of environmental planning and design
National Taiwan University, 1981, p 294)

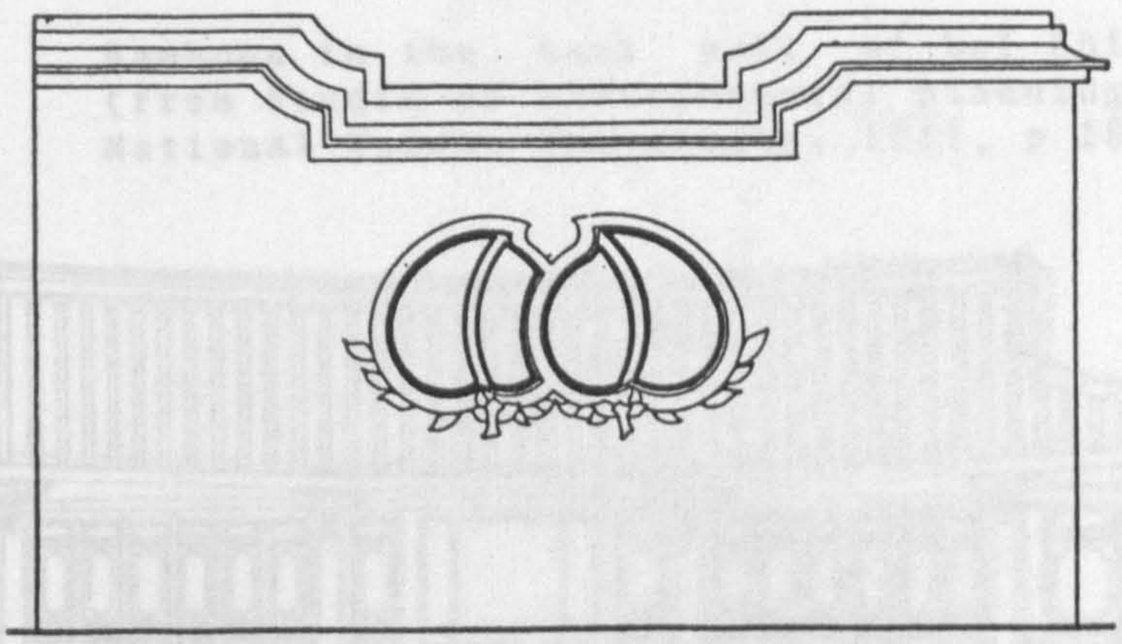


Figure 2-3-44 a　　Bamboos On the side wall of Chi Ku Shu House
(from Studio of environmental planning and design
National Taiwan University, 1981, p 154)

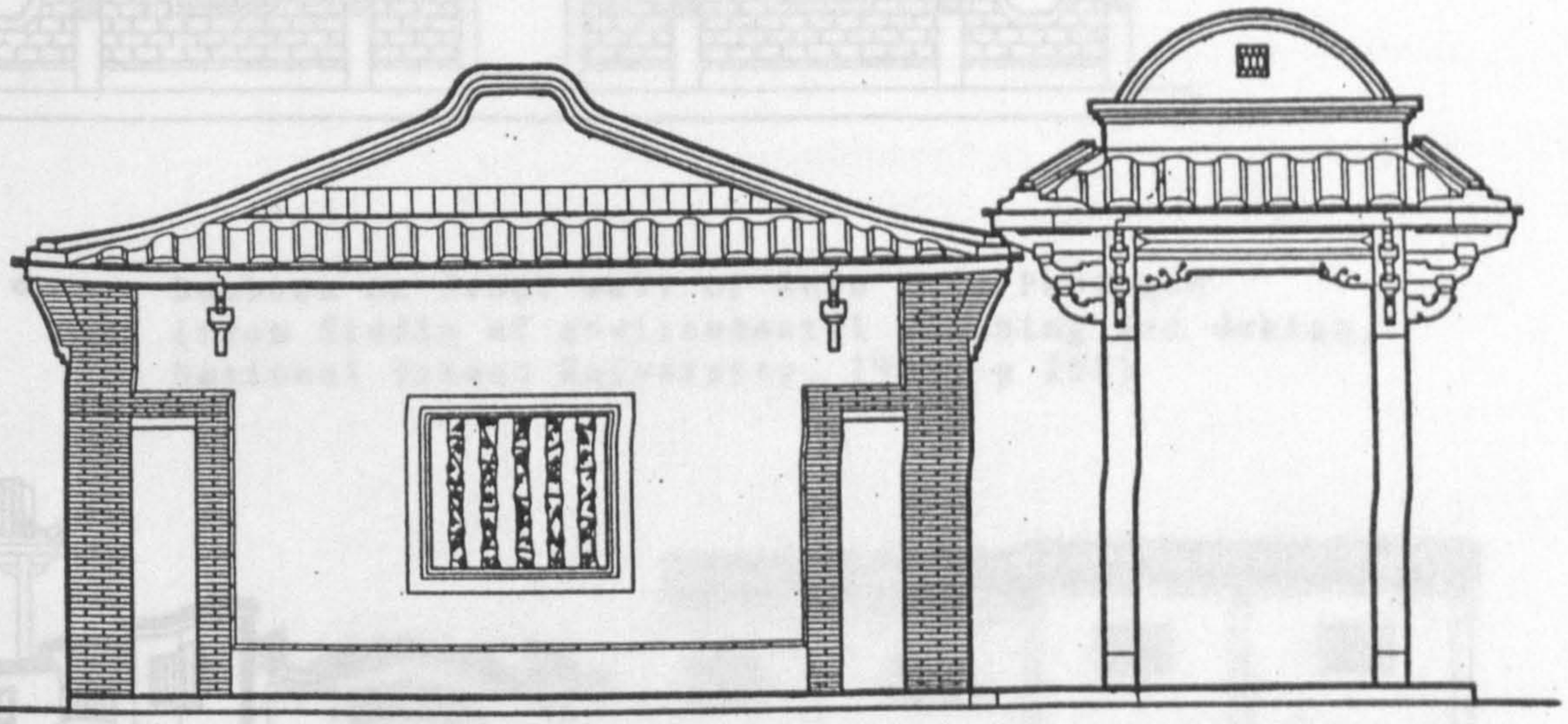


Figure 2-3-44 b　　Bamboos in the east ear room of Fang Chien Chai
(from Studio of environmental planning and design
National Taiwan University, 1981, p 175)

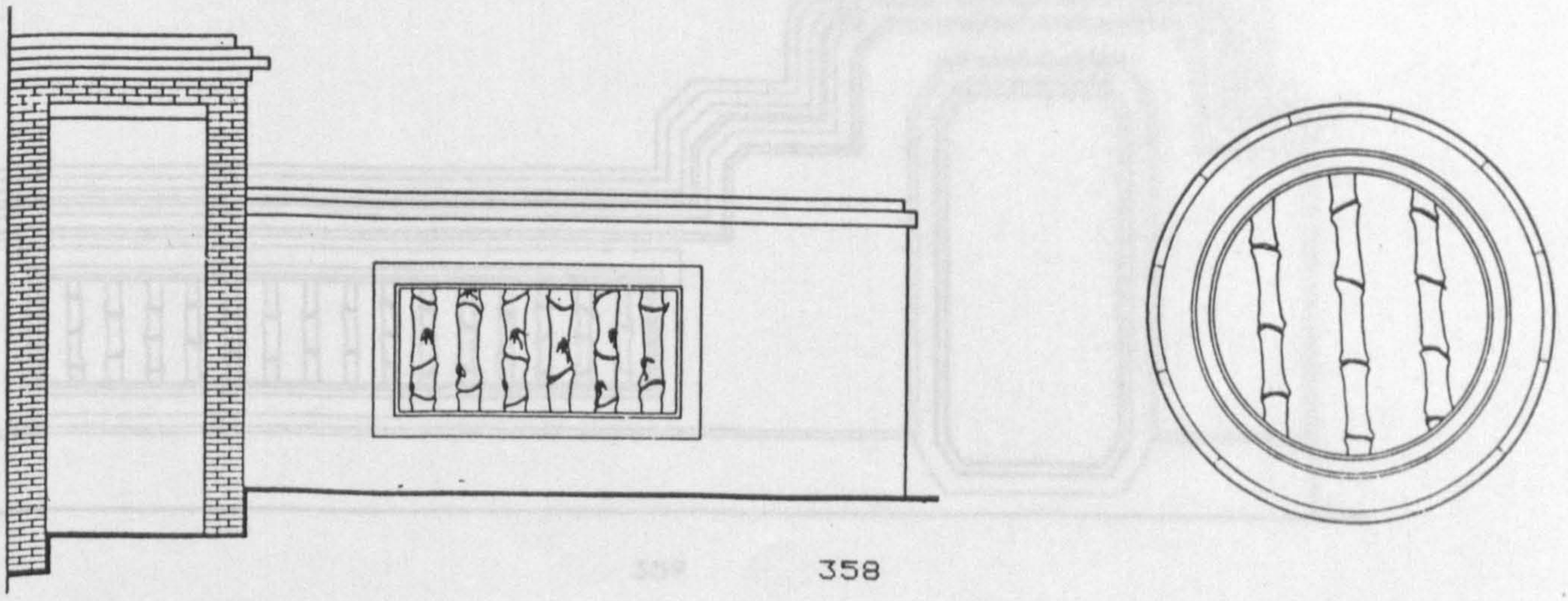


Figure 2-3-44 c Bamboos in the back wall of Lai Ching Pavilion (from Studio of environmental planning and design, National Taiwan University, 1981, p 182)

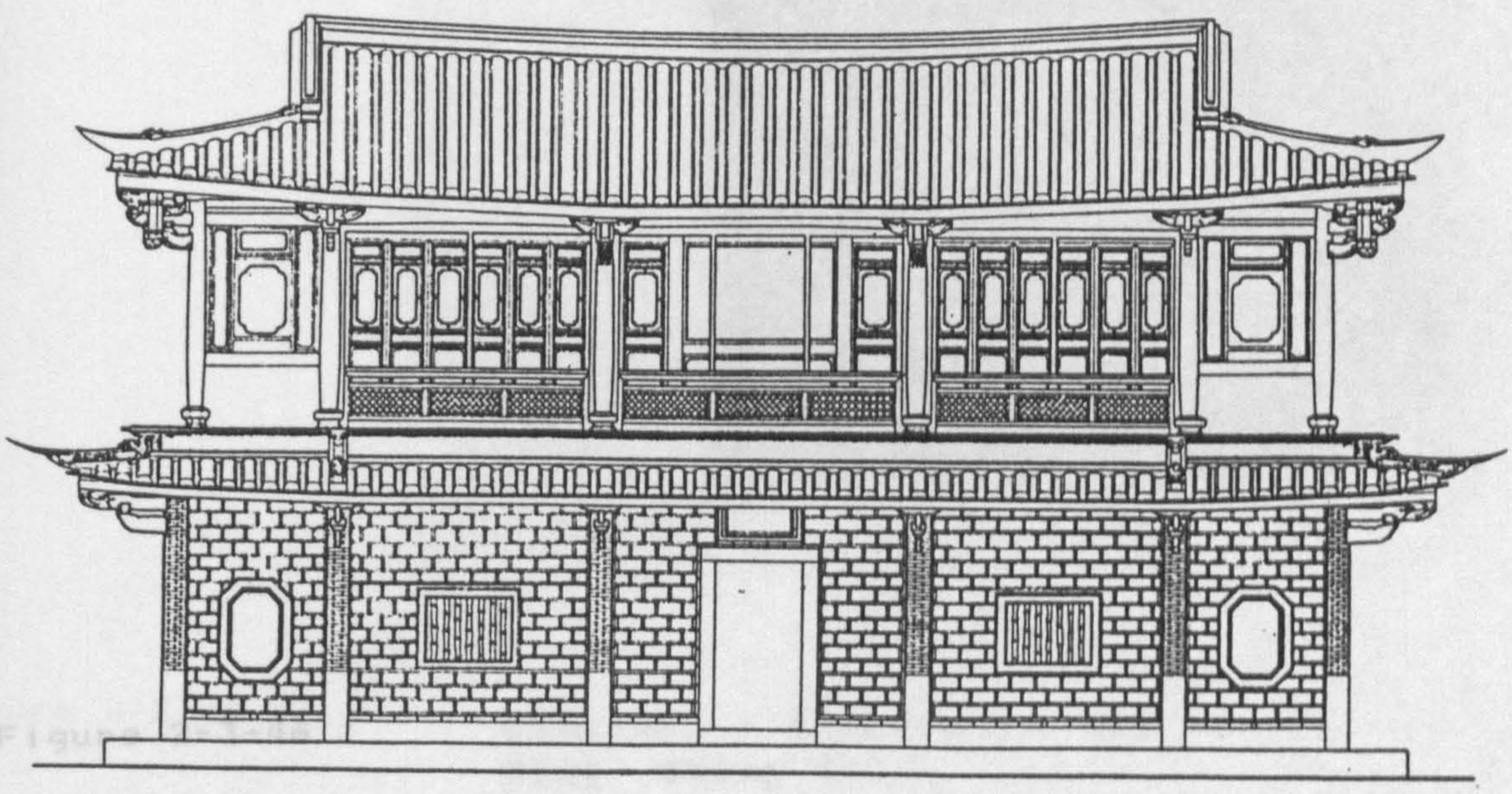
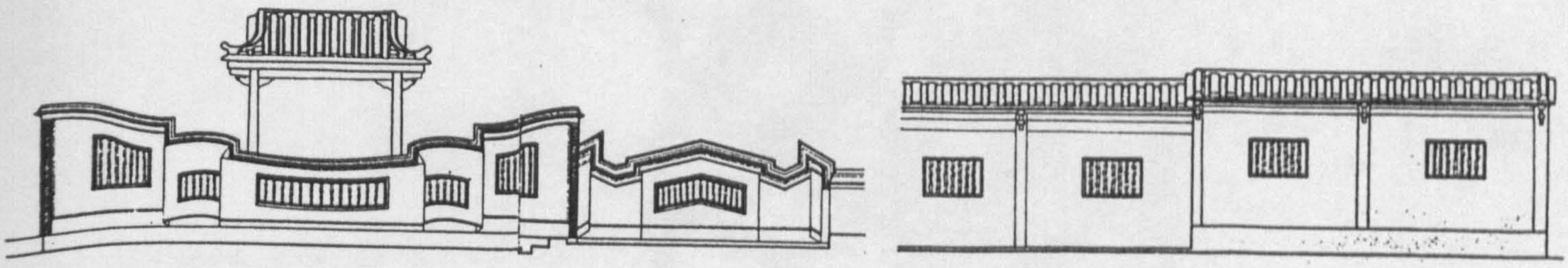


Figure 2-3-44 d Bamboos on front wall of Kuan Chia Pavilion (from Studio of environmental planning and design, National Taiwan University, 1981, p 264)



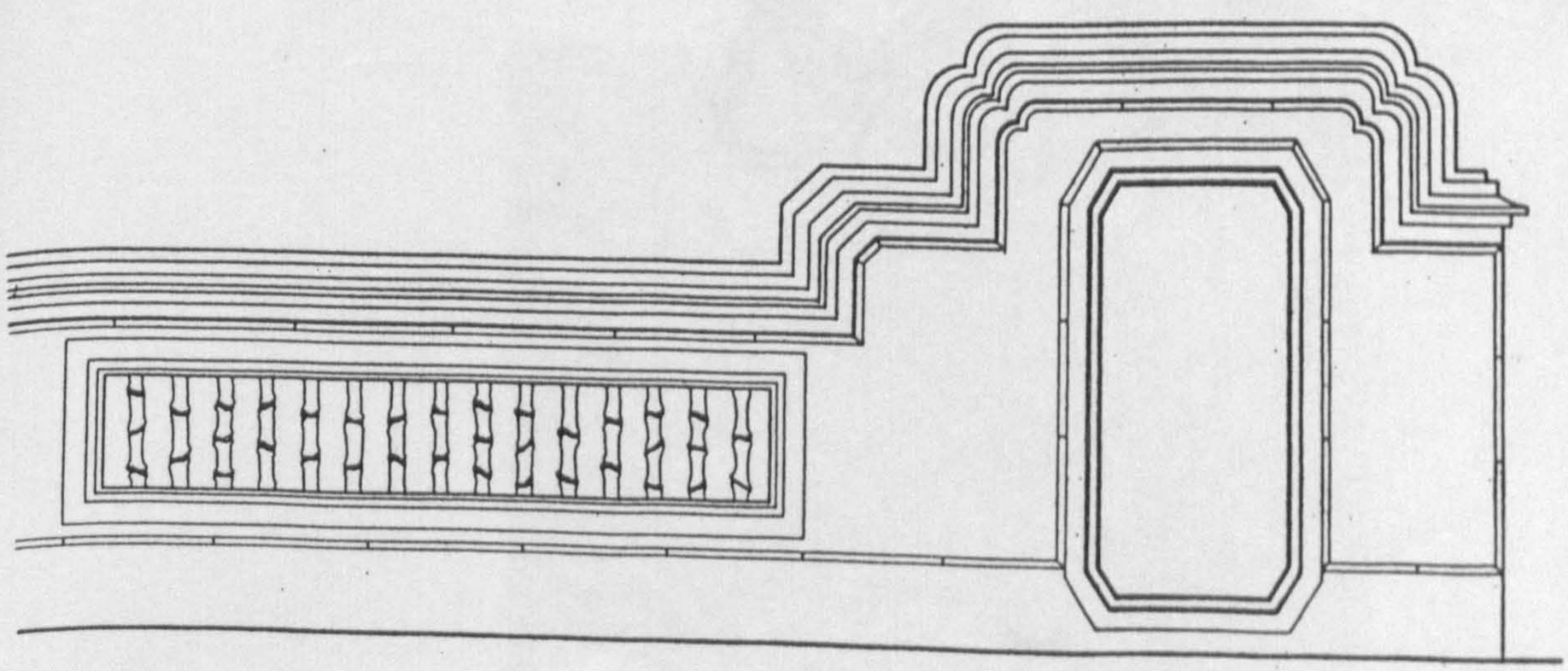


Figure 2-3-44 Japonicus - On the purlins and crossbeams in Pi I Guesthouse
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 70)

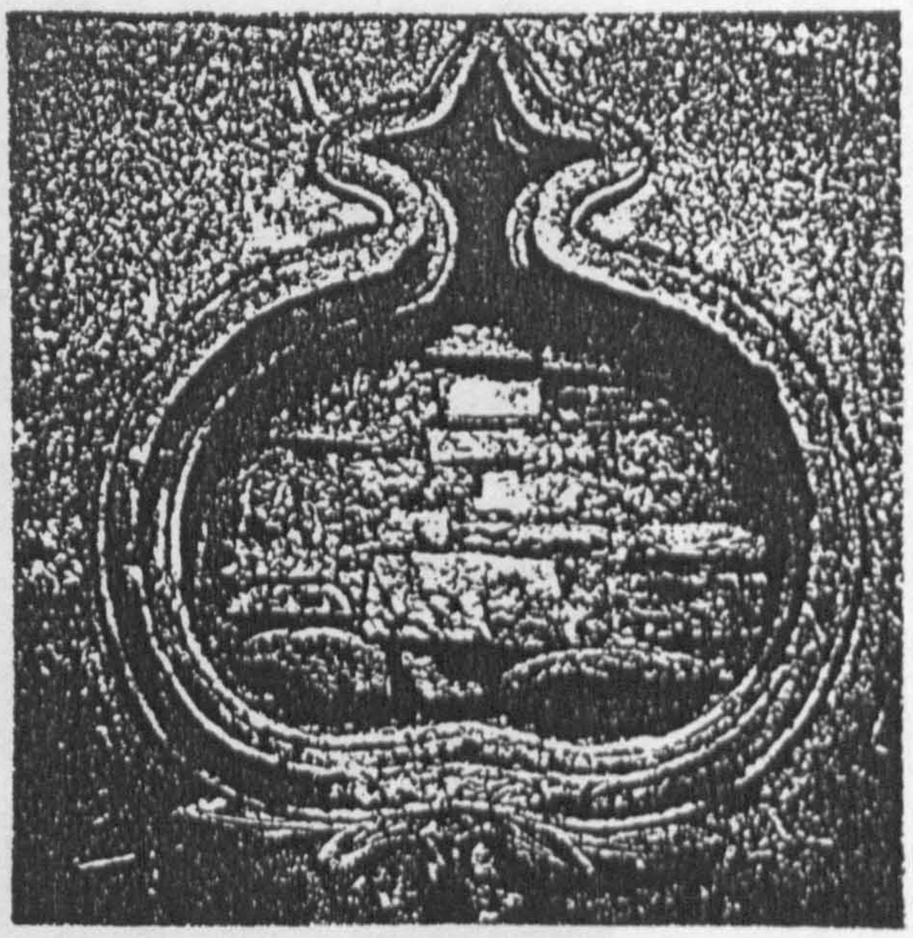
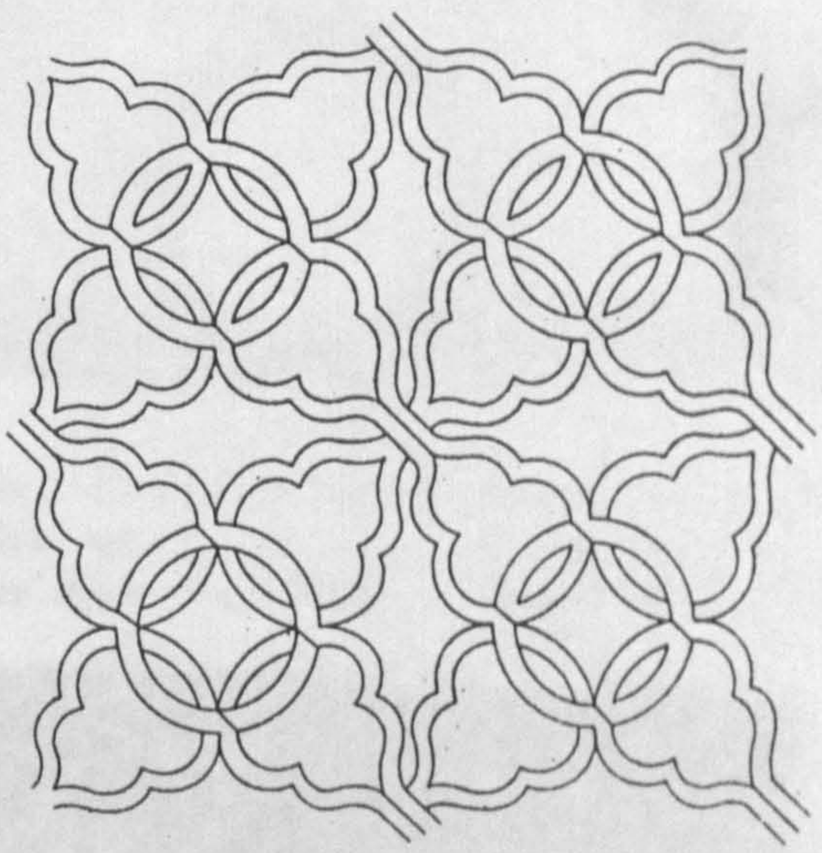


Figure 2-3-46 Calabash - Forming the window of the main room of Ting Ching Hall
(from Studio of environmental planning and design National Taiwan University, 1981, p 325)



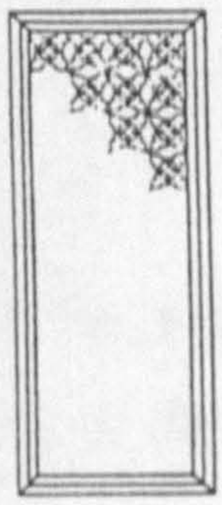


Figure 2-3-48 a Circle - Formed by bricks in the wall of the o mansion
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 76)

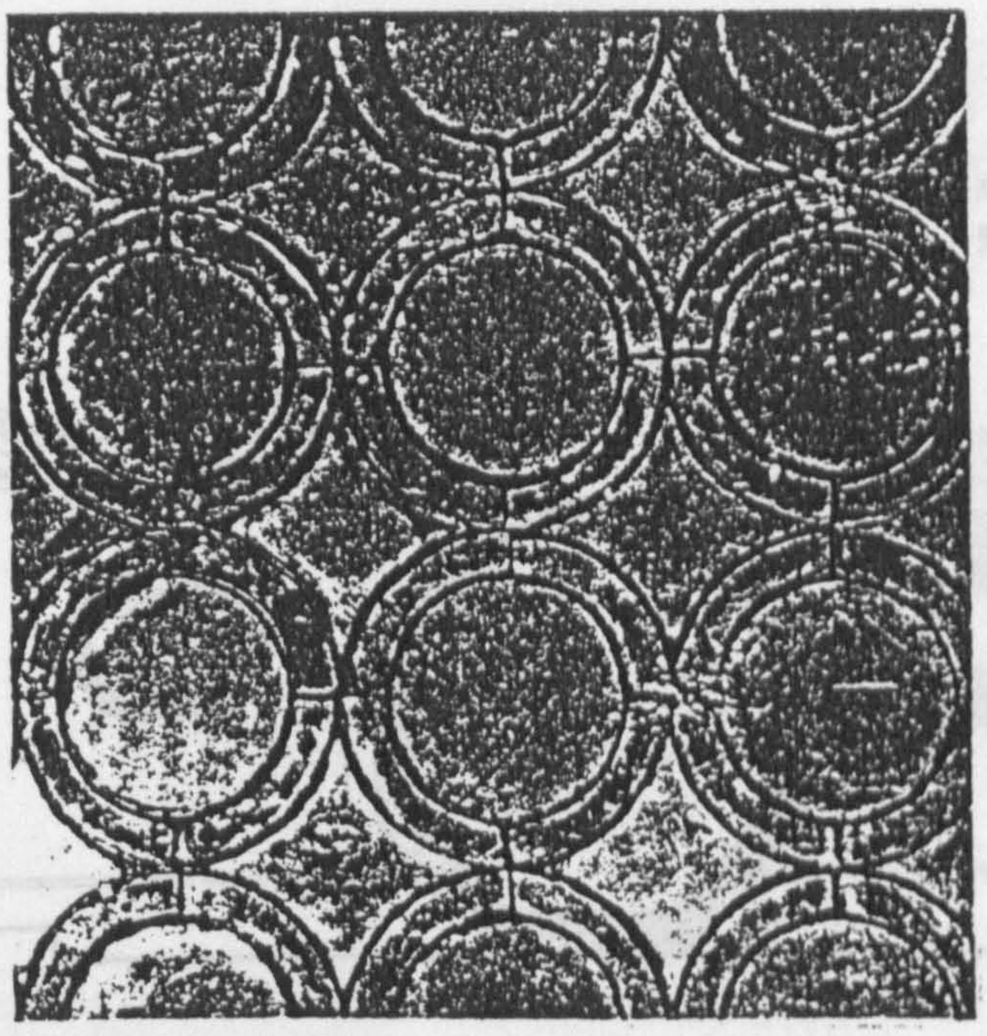


Figure 2-3-48 b A circular door in front of Kuan Chia Pavilion
(from Studio of environmental planning and design. National Taiwan University, 1981, p 340)

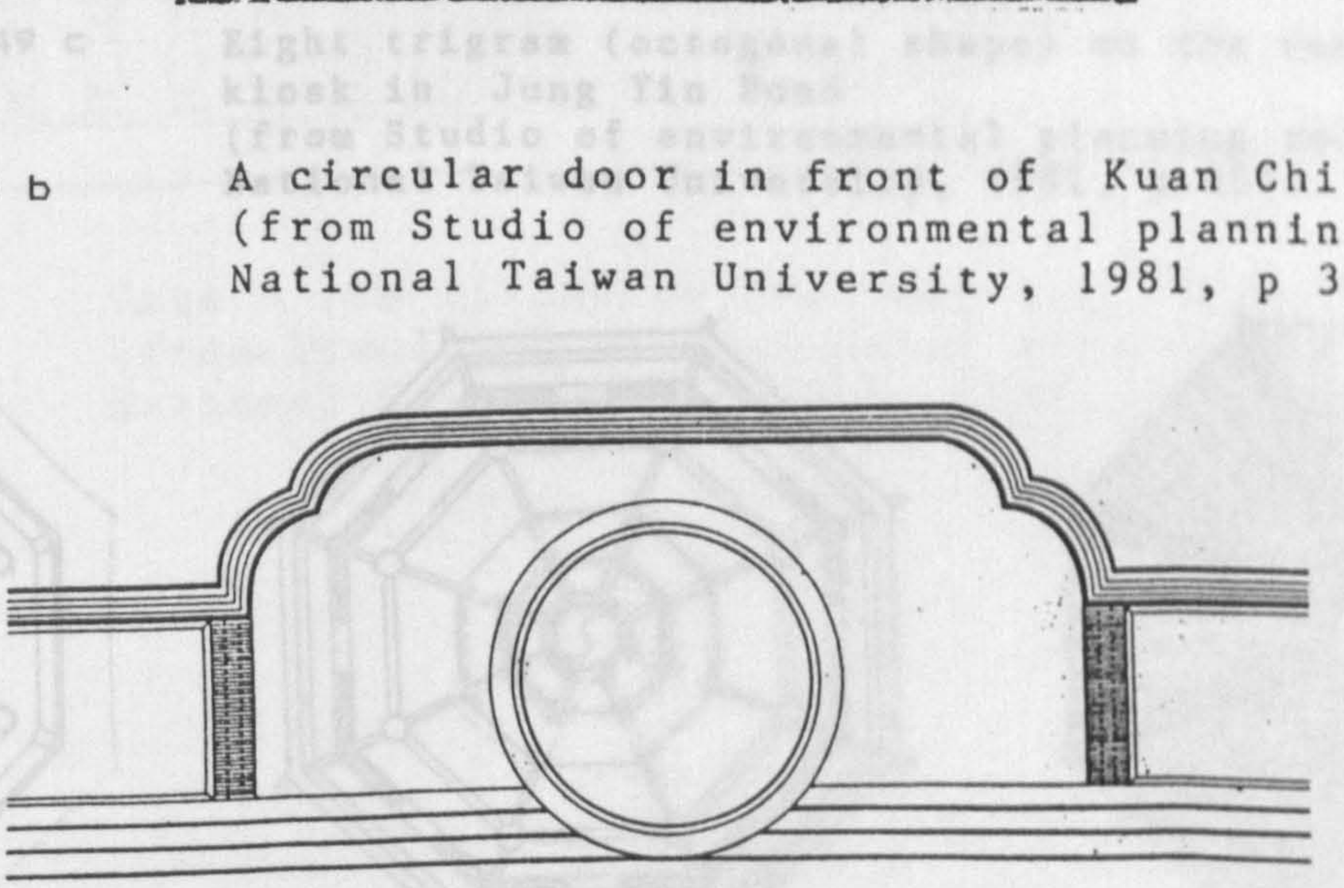


Figure 2-3-49 a Eight trigram (octogonal shape) - Formed by brick in the wall of the old mansion
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 76)

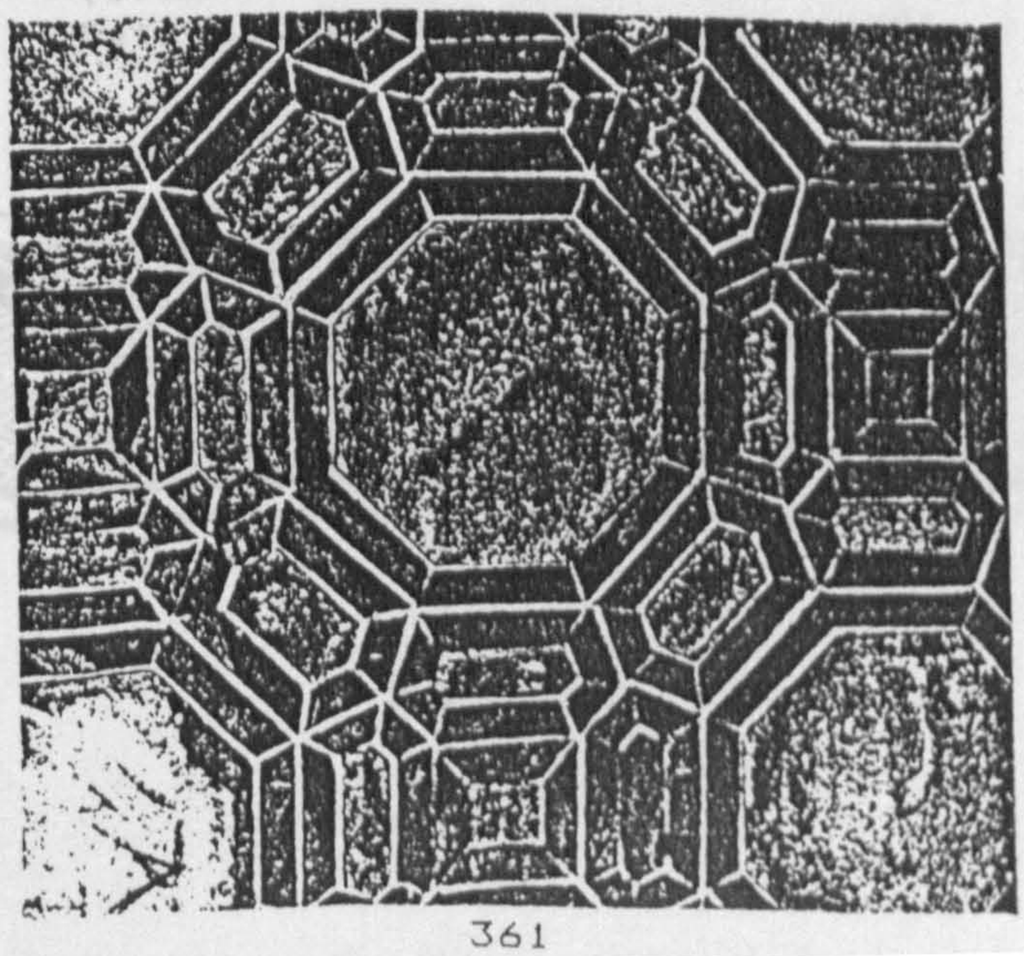


Figure 2-3-49 b) Eight trigram (octogonal shape) in the wall in front of Kuan Chia Pavilion
(from Studio of environmental planning and design, National Taiwan University, 1981, p 268)

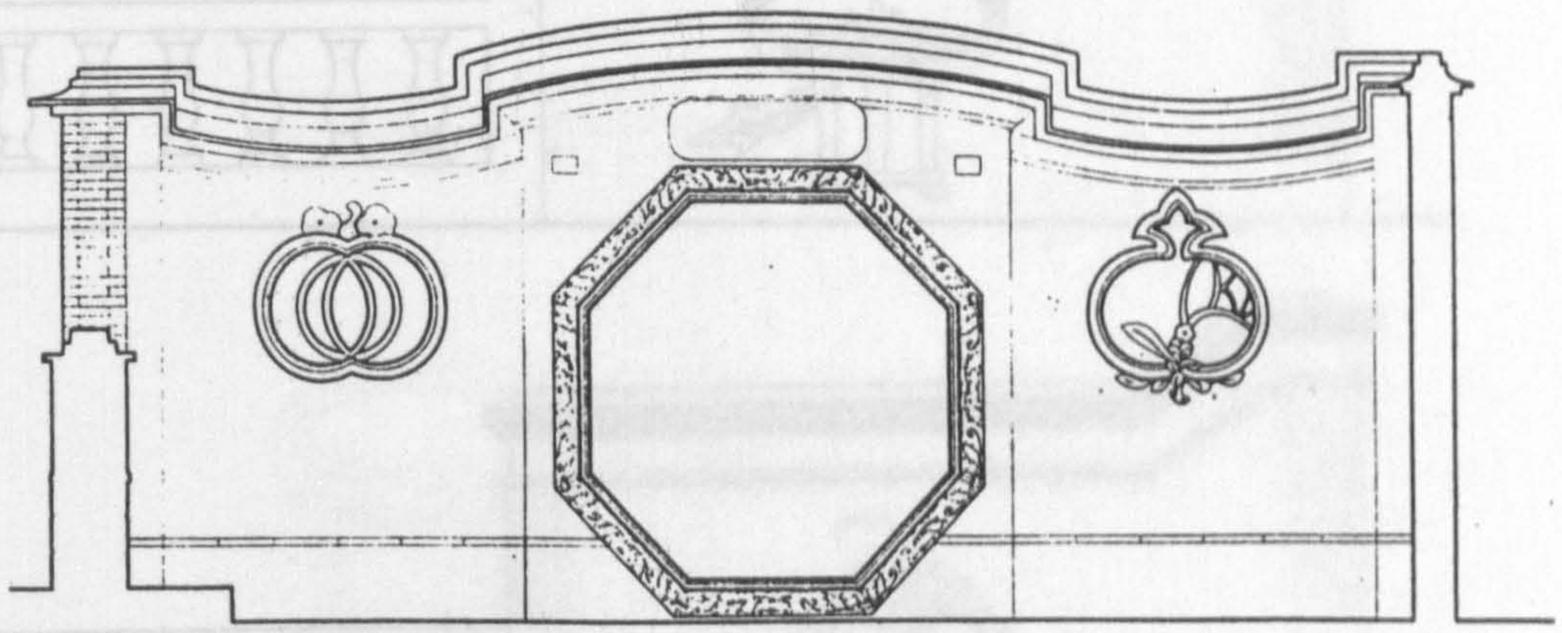
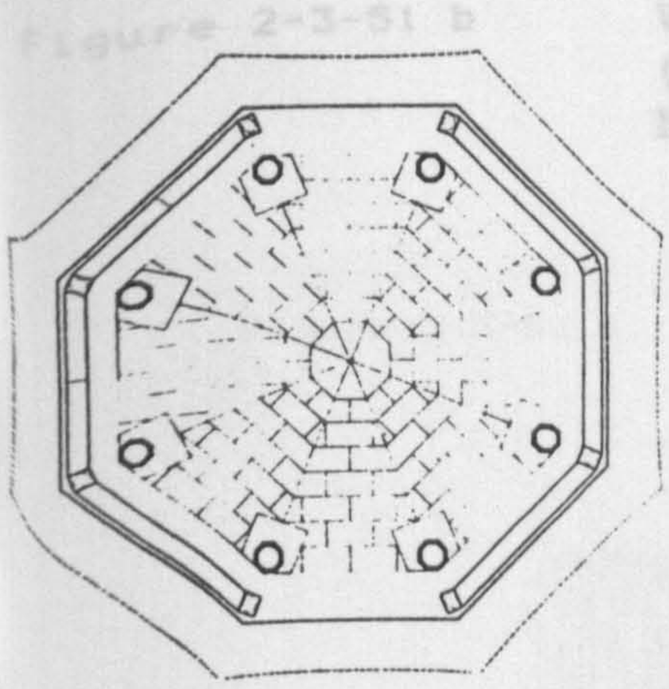
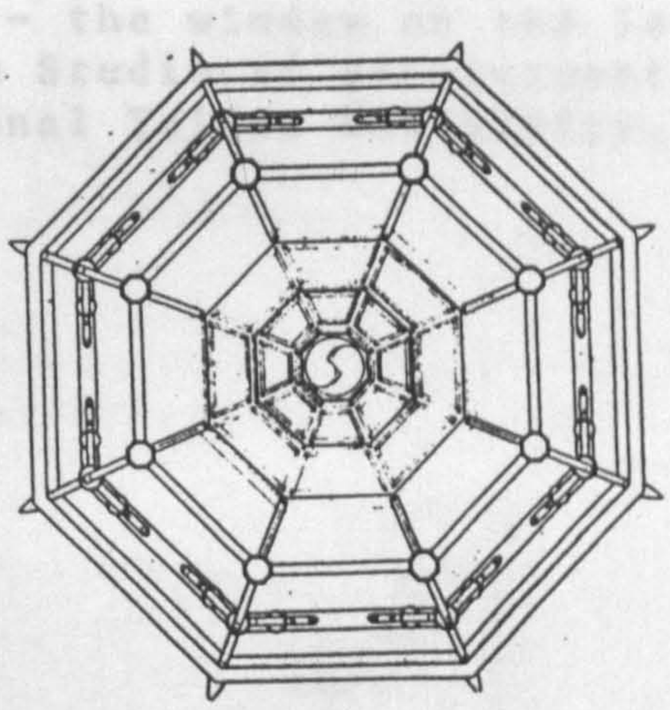


Figure 2-3-49 c Eight trigram (octogonal shape) on the roof of the kiosk in Jung Yin Pond
(from Studio of environmental planning and design, National Taiwan University, 1981, p 352)





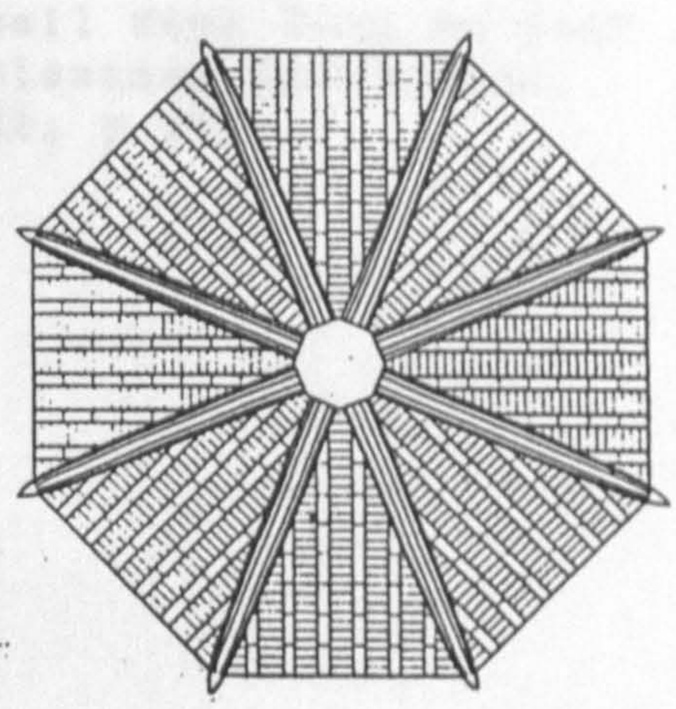


Figure 2-3-50 b 卍 - on the wall of Yueh Po Shui Pavilion
(from Studio of environmental planning and design, National Taiwan University, 1981, p 302)

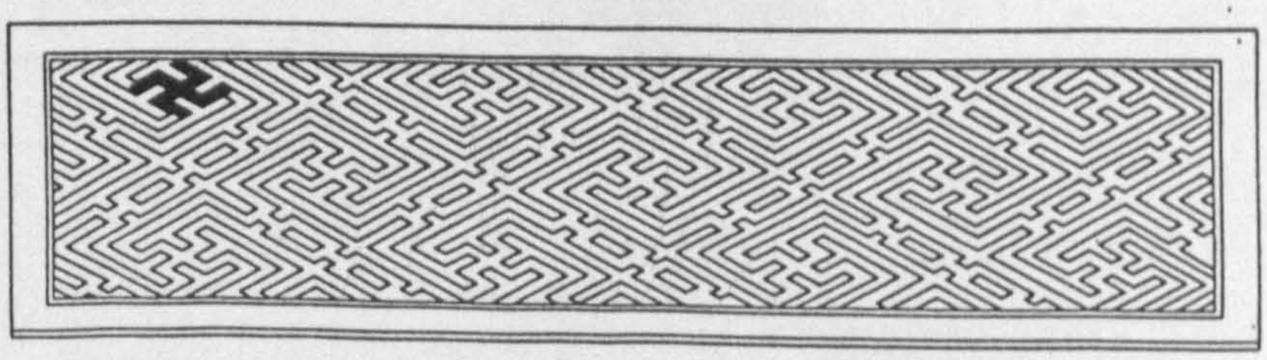
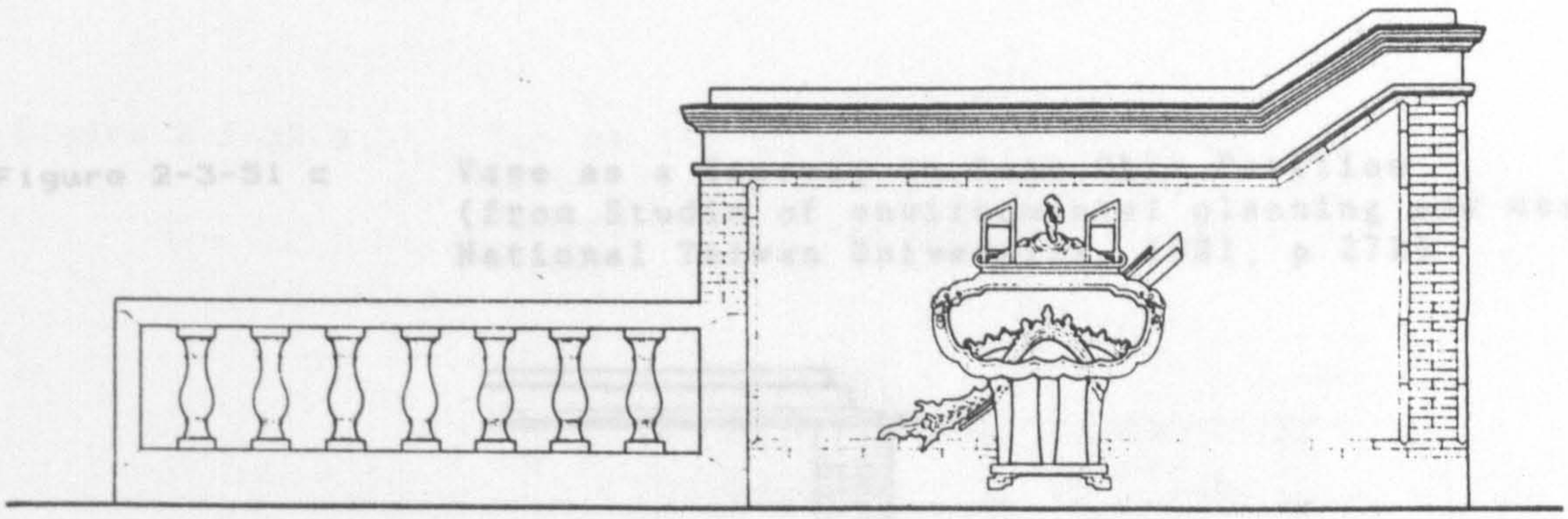


Figure 2-3-51 a Vase - Found in the wall of Lai Ching Pavilion (from Studio of environmental planning and design, National Taiwan University, 1981, p 227)



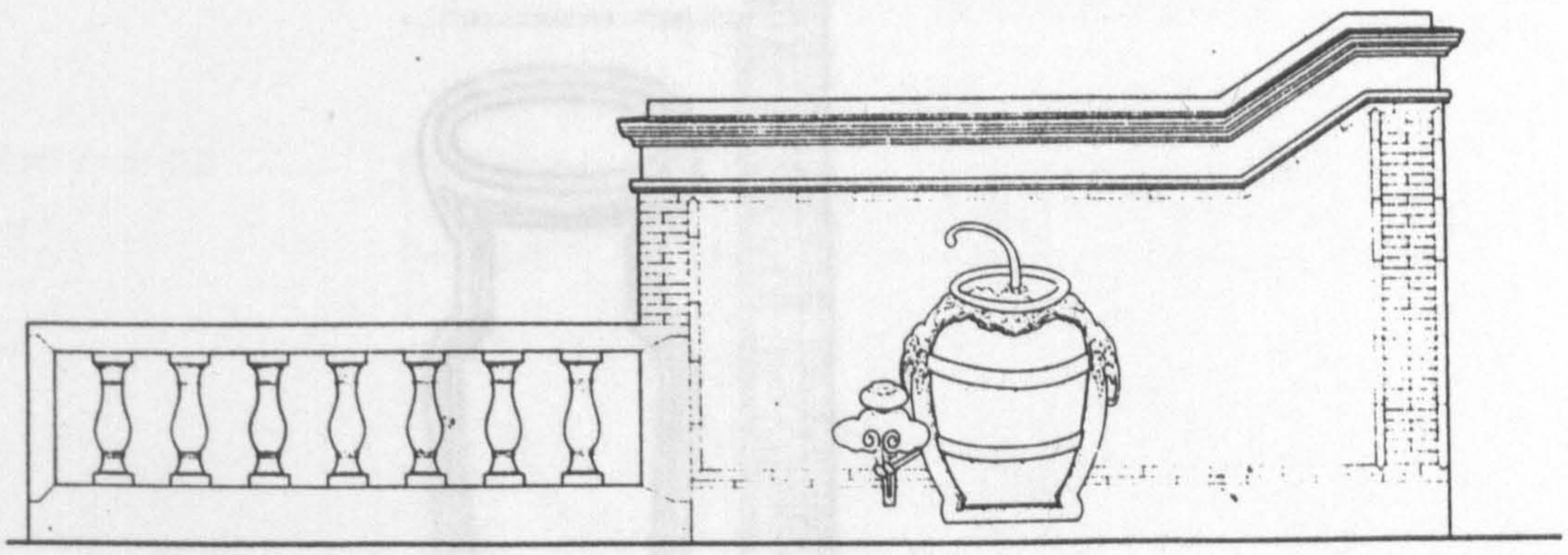


Figure 2-3-51 b Vase - the window on the long wall Heng Hung Wo Yueh (from Studio of environmental planning and design, National Taiwan University, 1981, p 260)

Figure 2-3-51 c Vase as a doorway in Kuan Chia Pavilion
(from Studio of environmental planning and design, National Taiwan University, 1981, p 272)

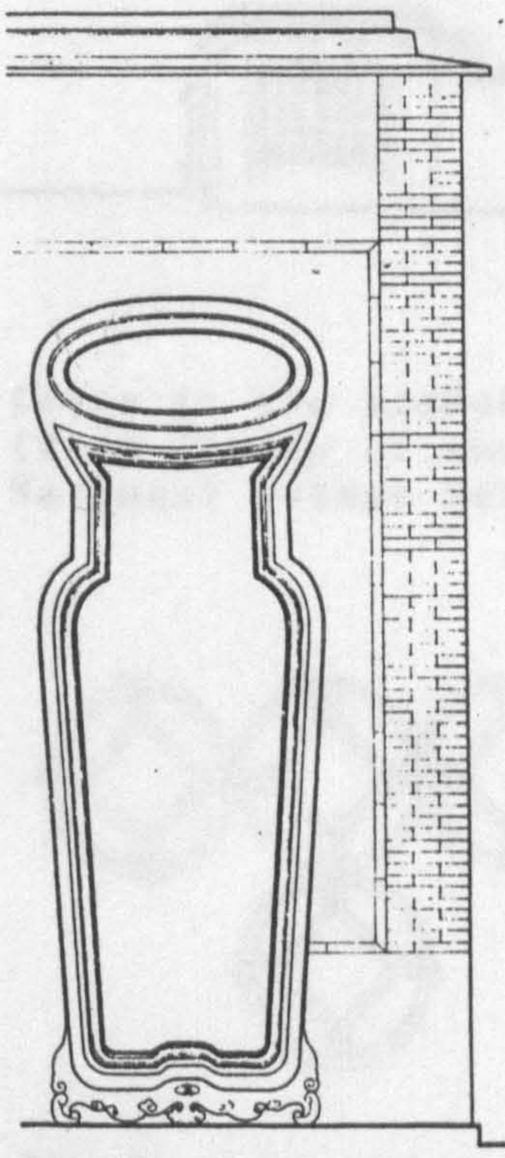
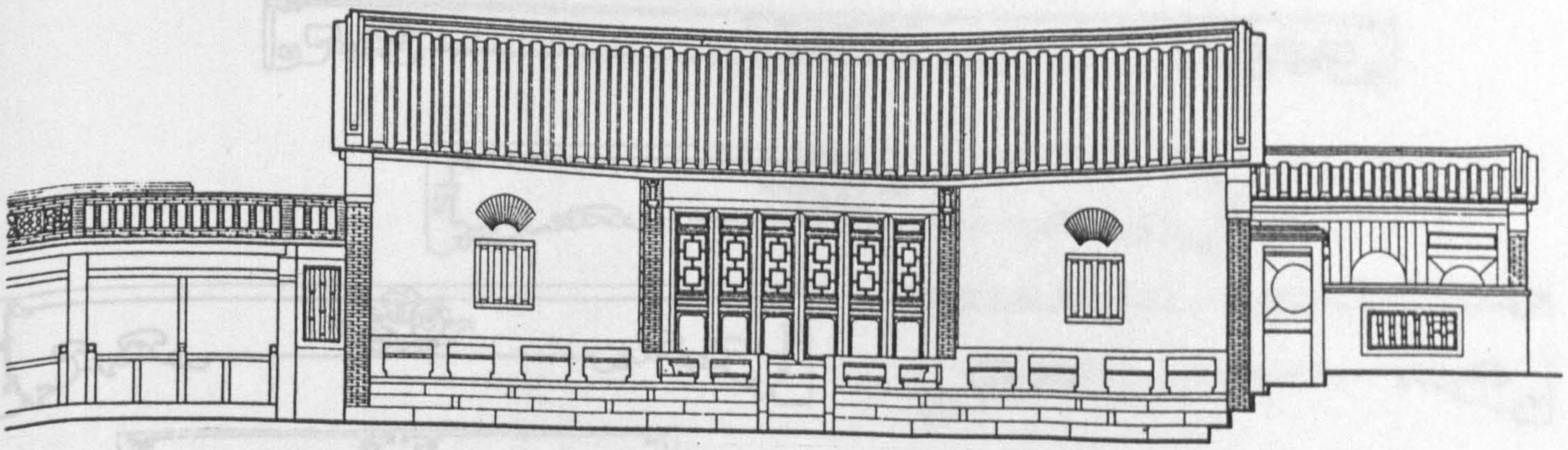


Figure 2-3-52 a Fan - Found on the front wall of Fang Chien Chai
(from Studio of environmental planning and design, National Taiwan University, 1981, p 162)



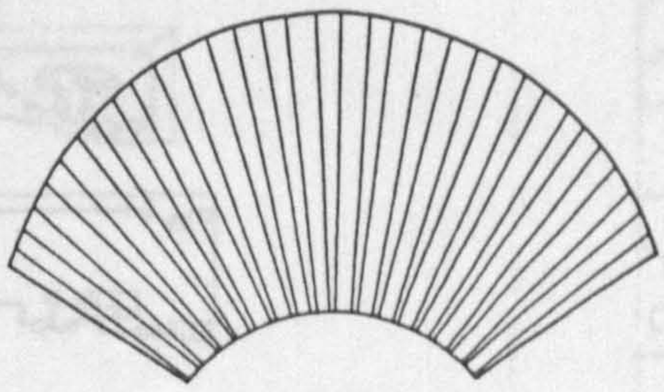


Figure 2-3-52 b Fan on the wall of Yueh Po Shui Pavilion
(from Studio of environmental planning and design, National Taiwan University, 1981, p 302)

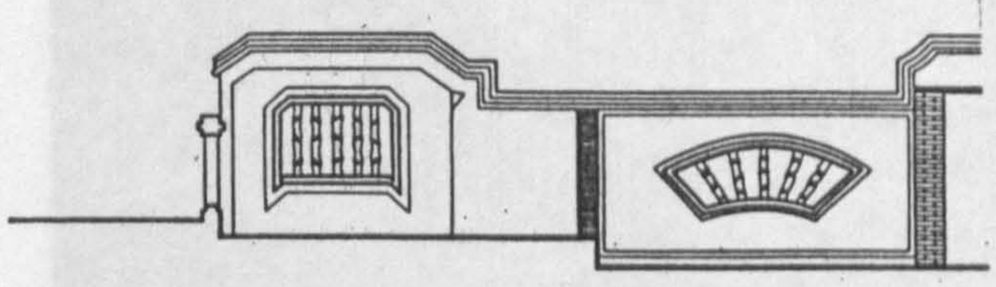


Figure 2-3-53 Coins in the window of Ting Ching Hall
(from Studio of environmental planning and design, National Taiwan University, 1981, p 332)

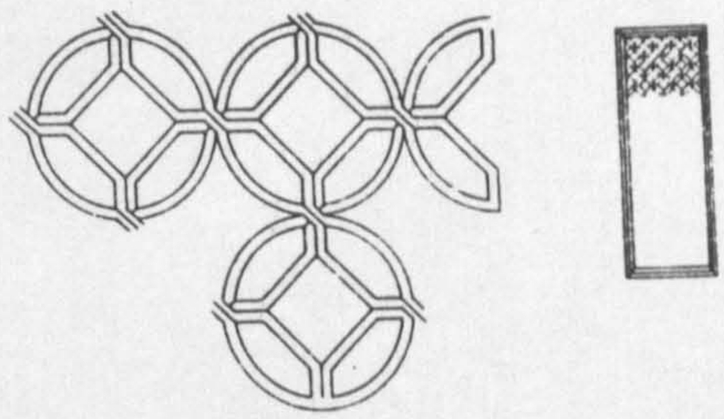


Figure 2-3-54 a 1 Clouds - On the crossbeams of the central room of Lai Ching Pavilion
(from Studio of environmental planning and design, National Taiwan University, 1981, p 241, 245, 248, 249, 258)

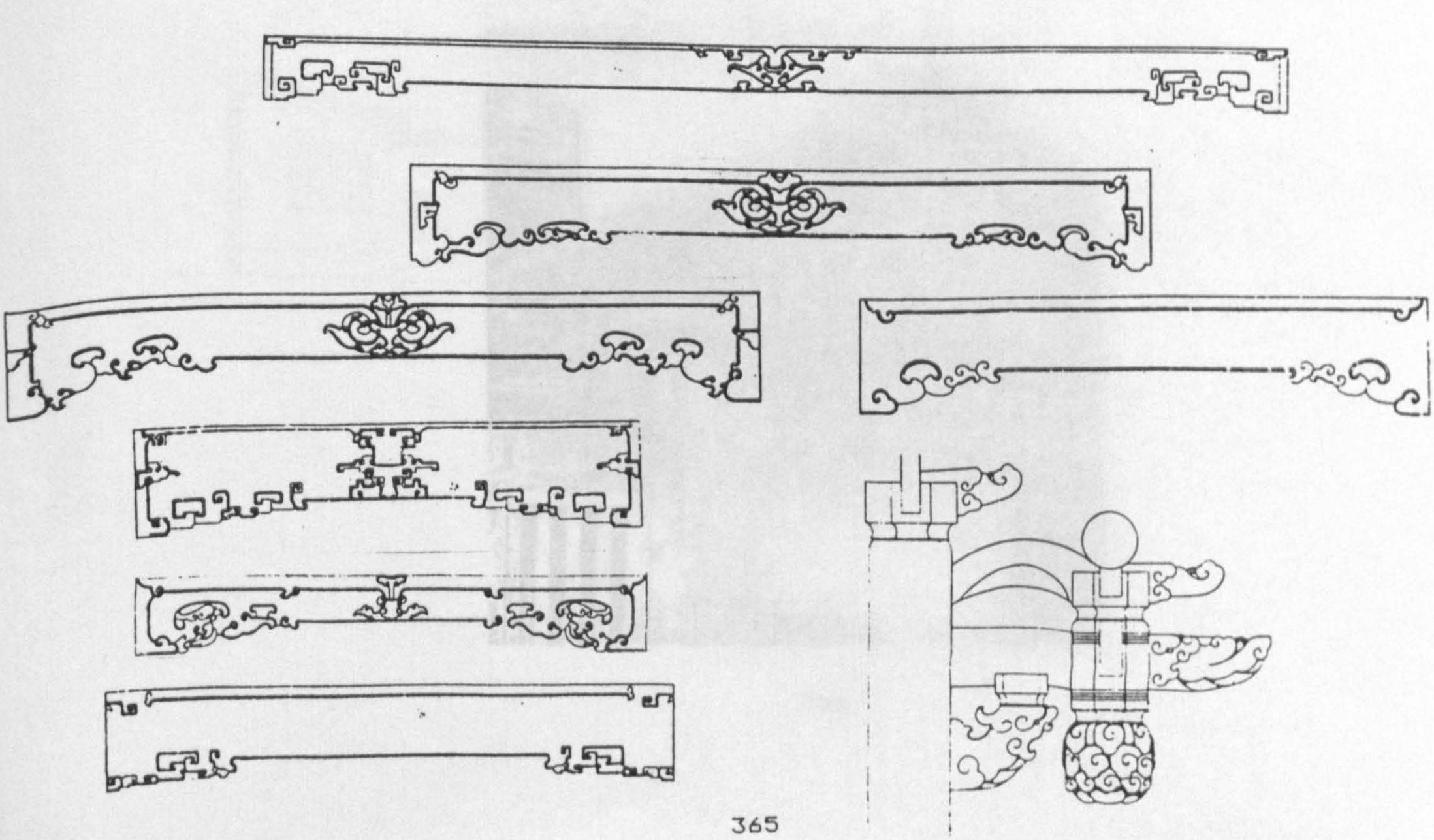


Figure 2-3-54 b

Clouds on the "fire preventing mountain walls" of the new compound
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 69)

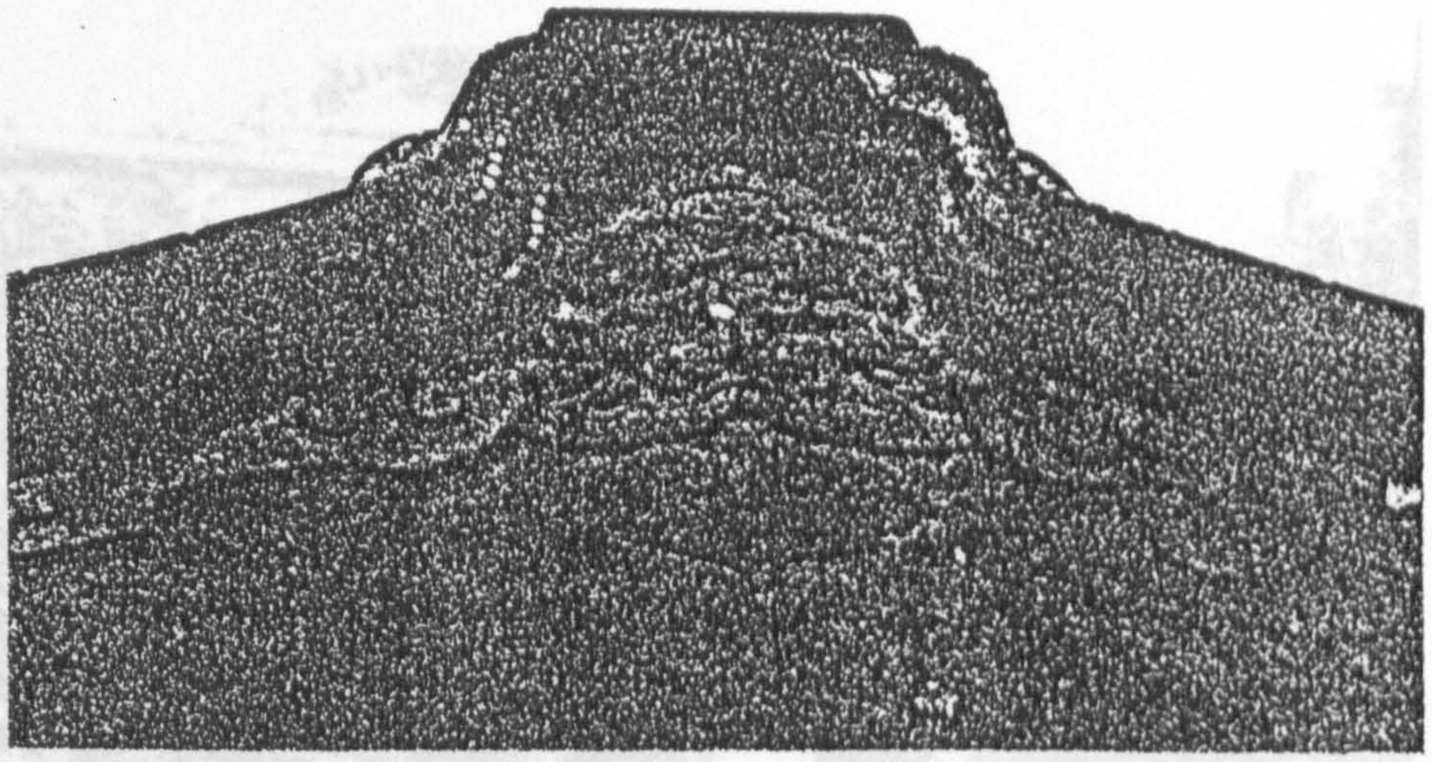


Figure 2-3-55

Jade - on the "fire preventing mountain walls" of the old and new compounds
(from Han Pao-Teh & Hung Wen Hsiung, 1973, p 70)

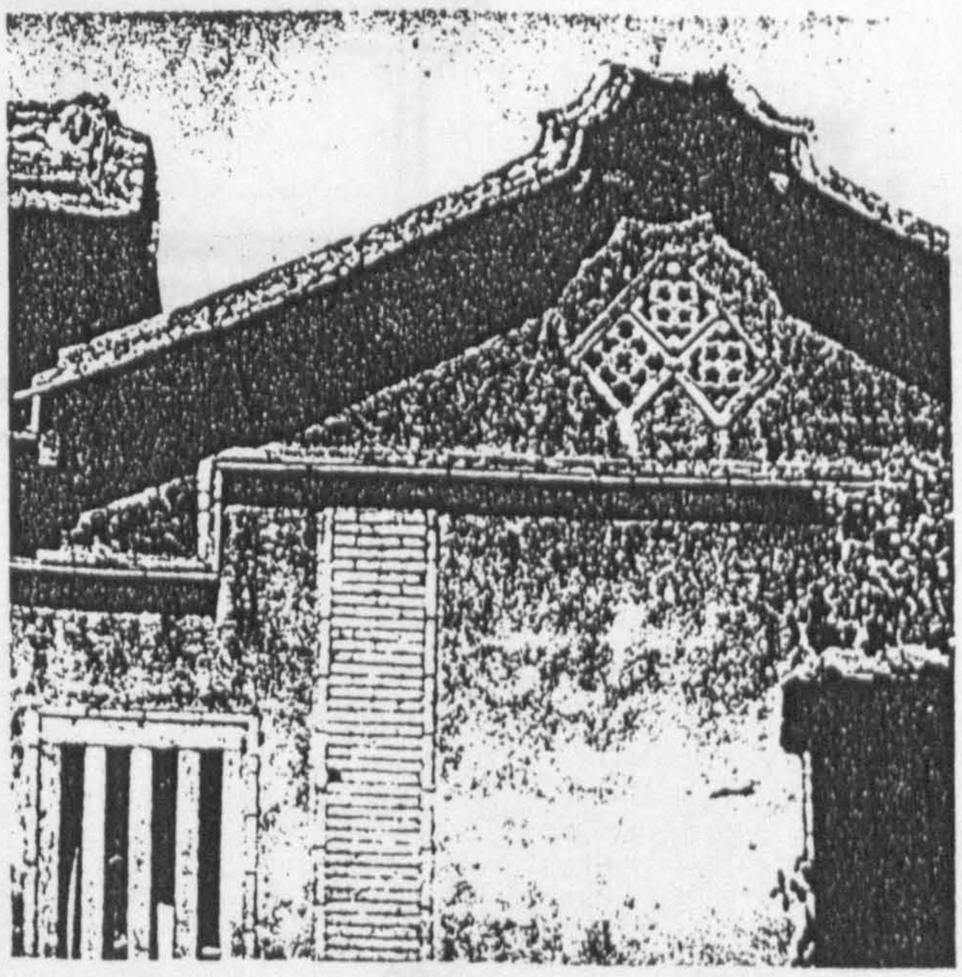
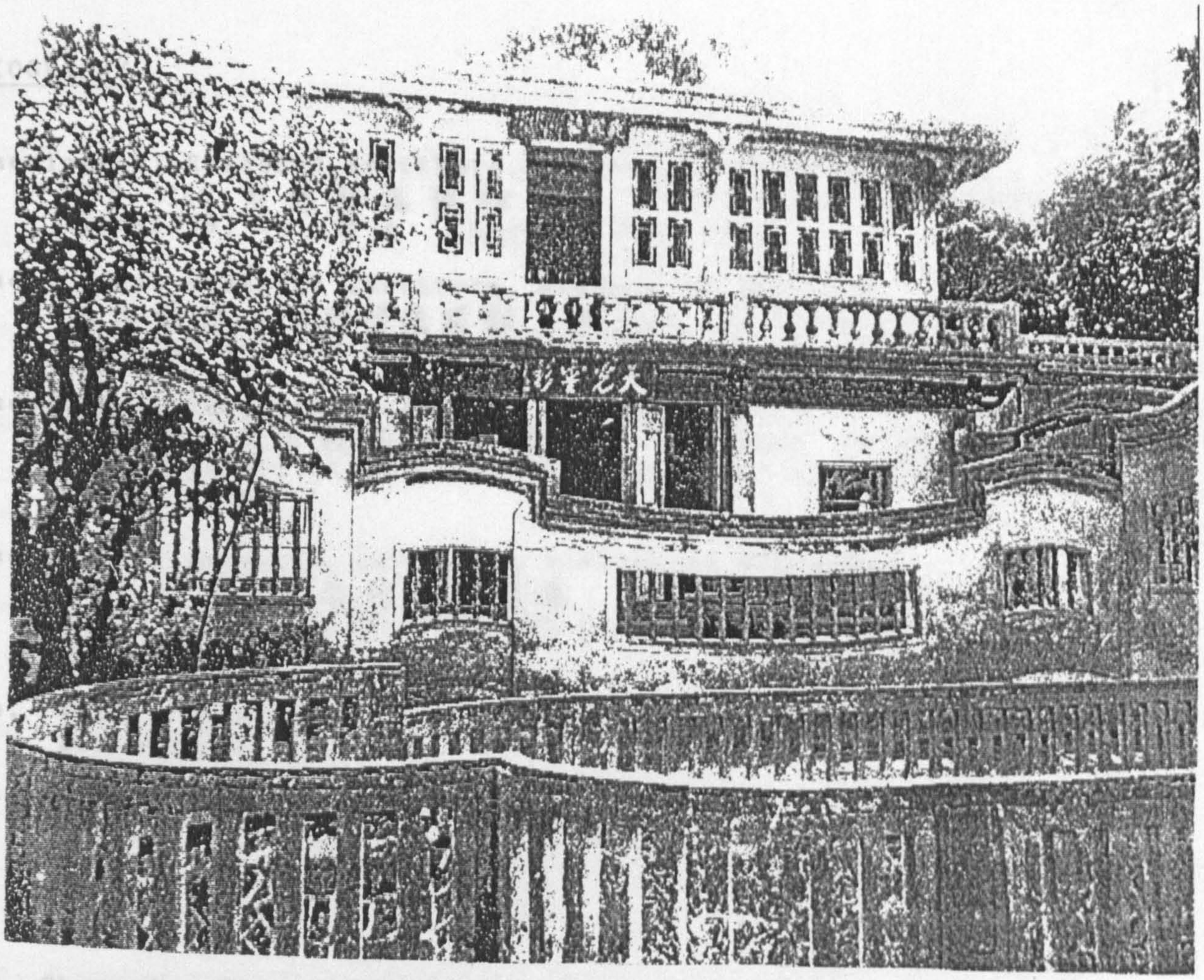
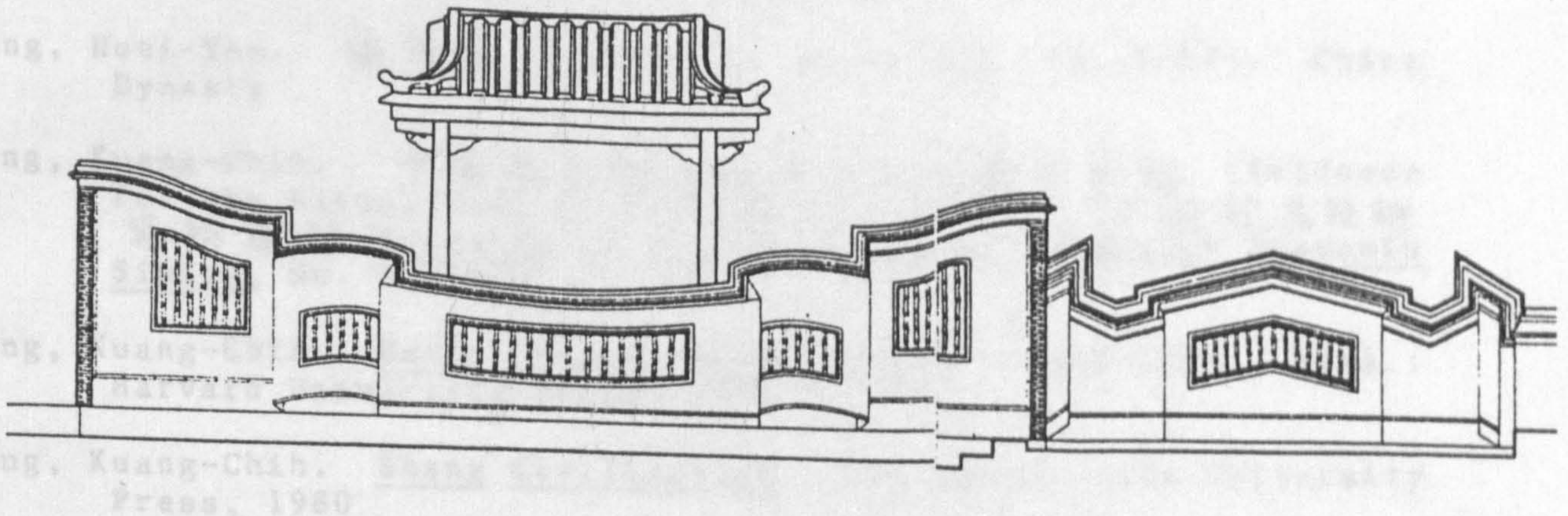


Figure 2-3-56 Scrolls - On the wall in front of Ting Ching Hal (from Han Pao-Teh & Hung Wen Hsiung, 1973, p 341





PAGE NUMBERING AS ORIGINAL

BIBLIOGRAPHY

Archaeological Research Institute, Academy of Sciences. 1958-1959 殷墟發掘簡報 (Report on Yin Remains in 1958-1959) in 考古 Kao Ku, Feb. 1961

Archaeological Research Institute, Academy of Sciences. 河南偃師二里頭發掘簡報 (Report on Discovery of Erh Li Tou, Yen Shih in Honan) in 考古 Kao Ku. May 1965

Archaeological Research Institute, Academy of Sciences. 河南偃師二里頭早商宮殿發掘簡報 (Report on Early Shang Palace at Erh Li Tou, Yen Shih in Honan) in 考古 Kao Ku. April, 1974

Archaeological Research Institute, Academy of Sciences. 1973 安陽小屯南地發掘簡報 (Report on Discovery of Hsiao Tun Nan Ti of Anyang in 1973) in 考古 Kao Ku. Jan. 1975

Bodde, Derk. China's Cultural Tradition. New York: Holt, Rinehart and Winston, 1957

Centre for Chinese Architectural Technology, Institute of Architectural History. 浙江民居 (Houses of Chekiang). Peking: Chinese Architectural Industry Publ, 1984

Chang, Chung-I; Ts'ao, Chien-Pin; Ch'uan, Kao-Chieh; and Tu, Hsiu-Chün. 徽州明代住宅 (Ming Dynasty House in Huichou). Peking: Building and Public Works Publ. House, 1957

Chang, Huei-Yen. 儀禮圖 (Diagrams According to I-Li). Ching Dynasty

Chang, Kuang-Chih. 中國遠古時代儀式生活的若干資料 (Evidence for the Ritual Life in Prehistoric China), 中研院民族研究所集刊 Bulletin of the Institute of Ethnology Academia Sinica, No. 9, 1960

Chang, Kuang-Chih. Early Chinese Civilisation. Cambridge, Mass.: Harvard University Press, 1976

Chang, Kuang-Chih. Shang Civilisation. New Haven: Yale University Press, 1980

Chang, Sen-Dou. "The Morphology of Walled Capitals", The City in Late Imperial China. Ed. by G. William Skinner. Stanford: Stanford University Press, 1977

Chang, Tsai. 正蒙 (Discipline for Beginners). Sung Dynasty

Chang, Yu-Huan. 中國古代建築材料的發展及其成就 "Development and Achievement of Building Materials in China" in建築歷史與理論 Corpus of Architectural History and Theory, Vol. 1, 1980

Chao, Paul. Chinese Kinship. London: Kegan Paul Int., 1983

Chapple, E.D., and Coon, C.S. Principles of Anthropology. New York, 1942

Chatley, Herbert. "The Heavenly Cover, A Study in Ancient Chinese Astronomy" in Observatory, No. 61, 1938

Chen, Cheng-Siang. 中國歷史文化地理圖冊 A Historical and Cultural Atlas of China. Tokyo: Hara Shobo, 1981

Chen, Hsiang-Tao. 五禮通考 (General Examination of Five Li). Ching Dynasty

Chen, Li. 白虎通義 (Comprehensive Discussions in the White Tiger Hall). Vol. 4. Han Dynasty

Chen, Meng-Chia. 殷墟卜解綜述 (Report on Oracles Found in Remains of the Shang Dynasty). Peking: Archaeological Research Institute at the Academy of Sciences, 1956

Chen, Yao-Tung. 藏族建築簡介 (Introduction to Tibetan Architecture), 中國建築史論文選集 (Collected Essays on the History of Chinese Architecture), Vol 2. Taipei: Ming Wen, 1983

Chien, Mu. 中國文化史導論 (An Introduction to Chinese Cultural History). Taipei: Chengchung, 1975

Chin, Ching-Fang. 井田制的發生與發展 (The Origin and Development of the Wellfield System) in 歷史研究 (Journal for the Study of History), No. 4. Peking, 1965

Chin, Ou-Pu. 向地下爭取居住空間 (Obtaining Living Spaces from Below the Ground), 建築師 (The Architect), No. 15, 1983

Chin Yao-Chi, 從傳統到現代 (From Tradition to Present). Taipei: Shih Pao Cultural Publ. 1978

Chu, Chai. "Chinese Humanism; A Study of Chinese Mentality and Temperament." Social Research, Vol. 26, 1959

Chu, Tien-Shun. 中國古代宗教初探 (Study on Ancient Chinese Religions). Shanghai: Jen-Ming, 1982

Chuang-Tzu 莊子 . In 33 Chapters. Supposedly written by the Taoist Chuang Chou 莊周 (369?-286?), but much of it was written after his death.

Committee for Cultural Relics in Kuangchou. 廣州出土漢代陶屋 (Pottery of Houses from the Han Dynasty found in Kuangchou) in 文物 Wen Wu, 1958

Danielli, Mary. "The Geomancer in China with Some Reference to Geomancy as Observed in Madagascar" in Folklore, Vol. 63, 1952

De Groot, J.J.M. The Religious System of China. Vol. 3. Book 1. Leide: E.J. Brill, 1897

Dillingham, Reed and Hua., Chang-Lin. 台湾傳統建築之勘察 A Survey of Traditional Architecture in Taiwan, Taichung: Tunghai University, 1971

Duke of Chou. 周髀算經 (Mathematical Classic on the Gnomon). Chou Dynasty.

Eliade, Mircea. The Sacred and the Profane. Translated by Willard Trask. New York: Harcourt, Brace & World, Inc. 1959

Fang, Jo-Po; Peng, Fei-Fei; and Ni, Hsüeh-Chen. 廣東农村住宅調查 (A Survey of Farmhouses in Canton), 中國建築史論文選輯 (Collected Essays on the History of Chinese Architecture), Vol. 2. Taipei: Ming Wen, 1983

Fei, Hsiao-Tung. 鄉土中國 (Rural China). Shanghai : Kuan Cha, 1948

Feuchtwang, Stephen. An Anthropological Analysis of Chinese Geomancy. Vietienne: Vithaga, 1974

Feuchtwang, Stephen. "Domestic and Communal Worship in Taiwan", Religion and Ritual in Chinese Society. Edited by A.P. Wolf. Stanford: Stanford University Press, 1974

Fo Yin. 陰陽風水講義 (Notes on Yin Yang Feng Shui). Reprinted Hsinchu: Chu-Lin Books, 1979

Forke, Alfred. The World Conception of the Chinese. Reading: Eastern Press, 1925

Freedman, Maurice. Lineage Organisation in Southern China. London: The Athlone Press, 1958

Freedman, Maurice. Chinese Lineage and Society. London: The Athlone Press, 1966

Fu, Hsi-Nien. 陝西扶風召陳西周建築遺址初探 (Preliminary Study of West Chou Architectural Remains in Chaocheng in Fufong County, Shensi Province) in 考古與文物 (Archaeology and Cultural Relics), 1981

Fung, Yu-Lan. 中國哲學史 A History of Chinese Philosophy. Vol. 1. Shanghai:Shen Chou Publishing Co., 1931. Translated by Derk Bodde. Princeton: Princeton University Press, 1952

Fung, Yu-Lan. 中國哲學史 A History of Chinese Philosophy. Vol. 2. Shanghai:Commercial Press, 1934. Translated by Derk Bodde. Princeton: Princeton University Press, 1953

Greel, H.G. 釋天 (Explanation of Tien) in 燕京學報 (Bulletin of Yen Ching University). No. 18, 1935

Group on History of Chinese Architecture. 中國建築史 (History of Chinese Architecture). Peking: Chinese Architectural Industry Publ., 1982

Guo, Hu-Sheng. 閔於《魯般營造正式》和《魯般經》 (The Builder's Guide of Lu Ban and the Lu Ban Classic), in 科技史文集 (History of Technical Sciences), No. 7. Shanghai: Technical Sciences Publishing Co., June 1981

Hall, Edward. Silent Language. New York: Doubleday & Co., 1959

Hall, Edward. The Hidden Dimension. New York: Doubleday & Co., 1966

Han, Pao-Teh. 斗拱之起源與發展 (The Origin and Development of the Bracket System). Taichung: Tunghai University, 1972

Han, Pao-Teh, and Hung, Wen-Hsiung. 板橋林宅調查研究與修復計劃 Panchiao Lin Family Compound, The Survey, Study and Restoration. Taichung: Tung Hai Univ., 1973

Han, Pao-Teh. 風水-中國人的環境架構 "A Study of Feng Shui as a Chinese Concept of the Environment", 建築與城鄉研究學報 Bulletin of Environmental Studies, Vol. 2, No. 1. Taipei:National Taiwan University, 1983

History Dept., Peking University. 商周考古 (Archaeology from the Shang and Chou Dynasties). Peking: Wen Wu, 1979

Ho, Wai-Lu. 中國古代社會史論 (History of Ancient Chinese Society). Hong Kong: Joint Publishing Co., 1979

Honan Provincial Museum. 鄭州商代城址試掘簡報 (Report on the Discovery of Shang City in Cheng Chou County) in 文物 Wen Wu. Jan. 1977

Hsiao, Chi. 五行大意 (Great Meaning of the Five Elements). Han Dynasty

Hsiao Ching 孝經 (Classic of Filial Piety)

Hsiao Ming. 北平的四合院住宅 (The Four-in-one Courtyard House) in 故都鄉情 (Aspects of Life in Peking). Taipei: Ta-Ti. 1983

Hsing, I-Tien. 中國人的天下觀 (Cosmic View of the Chinese) in 中國文化新論 (New Treatise on Chinese Culture). Edited by Liu Tai. Volume on Origins. Taipei: Lien-Ching, 1982

Hsing Yen Chih Yao 心眼指要 (Essential Points of Feng Shui). Shanghai: Hsiao Ching San Fang Publ., Ching Dynasty.

Hsu, Francis. Under the Ancestor's Shadow. Stanford: Stanford University Press, 1971

Hsu, Shang-Chih; Feng, Liang-Tang; Pan, Yrun-Chi; and Chou, Chien-Nung. 雪山草地之藏族民居 (Tibetan Houses on Snow-covered Mountains and Highlands), 中國建築史論文選輯 (Collected Essays on the History of Chinese Architecture), Vol. 2. Taipei: Ming Wen, 1983

Hsü, Shen. Shuo Wen Chieh-Tzu 說文解字 . The first Chinese dictionary to use the system of radicals for classification, about A.D. 100

Huai Nan Tzu 淮南子 . A compilation of various schools of thought made by the guests attached to the court of Liu An , Prince of Huai Nan (died 122 B.C.)

Huang, Han-Ming. 福建民居的傳統特色與地方風格 (Traditional Characteristics and Local Style of Houses in Fukien), (The Architect), No. 19. Peking, June 1984

Huang, Pao-Yu. "The Influence of Confucianism, Taoism and Buudhism on Chinese Architecture". Lecture given at the Institute of Chinese Civilisation, Tunghai University, Taichung, Taiwan in 1962

Hughes, E.R., and Hughes, K.H. Religion in China. London: Hutchinson's University Library, 1950

Hung, Te-Hsien. 歷代的祭祀 (Ceremonies in Chinese History), in 中國文化新論 (New Treatise on Chinese Culture). Ed. by Liu Tai. Vol. 宗教禮俗篇 (Religion and Customs). Taipei: Lien-Ching, 1982

Huon de Kermadec, Jean Michel. The Way to Chinese Astrology. London: Unwin Paperbacks, 1983

I Ching 易經 (Book of Changes). Consists of an original corpus dating from probably the beginning of the Chou Dynasty, used for divination, and several appendices, probably written by Confucians during the early years of the Han Dynasty.

Ito, Chuta. Peculiarities of Chinese Architecture. Tokyo: Academy of Oriental Culture, 1941

Ito, Chuta. The History of Chinese Architecture. Translated by Chen Ching-Ch'uan. Taipei: Shang-Wu Publ. Co., 1978

Jen, Chih-Yuan. 下沉式黃土窑洞民居院落初探 (Notes on Excavated Loess Dwellings), 建築師 (The Architect), No. 15, 1983

Johnston, R.F. Lion and Dragon in Northern China. New York: Dutton, 1910

Juan, Chang-Jui. 台灣民間崇信的神靈 (The Sacred Souls Worshipped in Taiwan) in 藝術家 (Art Journal). Vol. 33, Nos. 1 & 2, Taipei, 1981

Juan, Chang-Jui. 俥新集 "Art of Folk Witchcraft". In 海外學人 Hai Wai Hsüeh Jen, No. 124, 1985

Kuan, Hua-Shan. 台湾傳统民宅所表現的空間觀念 (Traditional Houses and Folk Concepts in Taiwan), 中央研究院民族學研究所集刊 Bulletin of the Institute of Ethnology Academia Sinica, No. 49. 1980, pp 175-213

Kuan Tzu 管子 . Attributed to Kuan Chung (died 645 B.C.)

Kuo, Tai-Yüan, and Hsü, Po-An. 中國古代木構建築 (Ancient wooden Buildings in China), 建築史論文集 (Essays on Architectural History), No. 3. Chinghua University, Dept of Architectural Engineering, 1979

Lao, Ta-Kang. 風水照妖鏡 (Feng Shui and the Protective Mirror). Taipei: Shih Pao, 1985

Lao-tzu 老子 or Tao Te Ching 道德經 . Taoist work which probably dates from the 4th or 3rd century B.C.

Lee, Chieh. 营造法式 Building Methods and Patterns, the Sung Manual of Architecture. First edition 1103; reprint ed. Shanghai: Commercial Press, 1957

Lee, Chien-Lang. 台湾建築史 A History of Taiwan Architecture (1600-1945). Taipei: Pei-Wu, 1979

Lee, Chien-Liang. 金門民居建築 A Survey of Kinmen Traditional Architecture. Taipei: Hsiung Shih, 1978

Lee, Yün-Ho. 華夏意匠 Cathay's Idea - Design Theory of Chinese Classical Architecture. Taipei: Lung Tien, 1980

Legge, James. The Chinese Classics, Vol. 4. Hong Kong: Hong Kong University Press, 1960

Li, Che-Kang. 社與圖騰 (She and Totem), 東方雜誌 (Tung Fang Journal) Vol. 32, No. 13. Shanghai, 1934

Li Chi 禮記 (Book of Rites). A Confucian compilation from the early years of the Han Dynasty.

Li, Chin-Yün. 新桃舊符－話過年 (On the Chinese New Year). In 中國文化新論 (New Treatise on Chinese Culture), Vol. on Religion and Customs. Taipei: Lien-Chin, 1982

Li, Ju-Kuei. 儀禮釋宮 (The Explanation of I-Li), Sung Dynasty

Liang, Ssu-Cheng. 古建築論叢 (Essays on Traditional Architecture). Reprinted Hong-Kong: Shen-Chou, 1975)

Liang, Ssu-Cheng. 敦煌壁畫中所見的中國古代建築 (Ancient Chinese Architecture as Seen from the Cave Paintings of Tun Huang) in 梁思成文集 (The Collected Writings of Liang Ssu-Cheng). Peking, Chinese Architectural Industry Publ., 1980

Liao, Tsu-Wang. 建築方位 (Orientation of Architecture) in 建築師 (Chinese Architect). Taipei, April, 1982

Lin, Chai-Chüeh. 人的自覺 (Man and His Consciousness of Self) in 中國文化新論 (New Treatise on Chinese Culture). Edited by Lin Tai. Volume on Origins. Taipei: Lien-Ching, 1982

Lin, Ch'un-Sheng. 中國古代社之源流 (Origin of the SHE in Ancient China), 中央研究院歷史研究所集刊 Bulletin of the Institute of History Academia Sinica, No. 17. Taipei, 1965

Lin, Hui-Ch'eng. 先秦時期干闌式建築研究 "The Study of Pile Dwellings in the Pre-Ch'in Period of China", 建築與城鄉研究學報 Bulletin of Environmental Studies, 1983

Lin, Hui-Ch'eng. 先周建築二題 (Two Aspects of Early Chou Architecture) in 建築學刊 (Bulletin of Architecture). Vol. 4. Taipei, 1981

Lin, Wei-Yin. 清式營造則例 (Principles of Wooden Structure in the Ching Dynasty). Shanghai: Eurasia Books, 1934

Lin, Yu-Tang. 吾土吾民 My Country and My People. Reprinted Taipei: Wen-Hua, 1983

Lin, Ch'un-Sheng. 中國祖廟之起源 "Origin of the Ancestral Temple in China", Bulletin of the Institute of History Academia Sinica

Lip, Evelyn. Chinese Geomancy. Singapore:Times Books International, 1979

Liu, Chih-P'ing. 雲南昆明一顆印住宅 (Chop Style Houses in Kunming, Yünnan), 中國營造學社彙刊 (Periodical of Society for Research in Chinese Architecture), Vol. 7, No.1, 1930

Liu, Chih-P'ing. 中國建築類型及結構 (Types and Structural Forms in Chinese Architecture). Peking: Building and Public Works Publishing House, 1957

Liu, Chih-Ping. 昆明東北鄉古建築圖錄及解說 "Picture and Illustration Album of Ancient Buildings in Dongbeixiang Village near Kunming", 科技史文集 (Collection of Scientific History), Vol. 2, 1979

Liu, Shih-Chi. 城郭市廛－城市的機能特徵及其模型 (City Walls and Business District- The Function, Characteristics and Model) in 中國文化新論 (New Treatise on Chinese Culture). Volume on Economics. Taipei: Lien-Ching, 1982

Liu, Tun-Chen. 兩漢住宅雜觀 (Notes on Houses of both Han Dynasties) in 中國營造學社彙刊 (Journal of the Society for Research in Chinese Architecture). Vol. 3, No. 3, 1932

Liu, Tun-Chen. 大壯室筆記 (Notes on Ta Chuang Shih) in 中國營造學社彙刊 (Journal of the Society for Research in Chinese Architecture). Vol. 3, No. 3, 1932

Liu, Tun-Chen. 魯般營造正式 (On Constructing Methods by Lu Ban). Wen Wu, No. 2, 1962

Liu, Tun-Chen. 中國住宅概說 (General Account of the Chinese House). Peking: Building and Public Works Publishing House, 1957; reprint ed., Taipei: Ming Wen, 1981

Liu, Tun-Chen. 中國古代建築史 (History of Ancient Chinese Architecture). Peking: Chinese Architectural Industry Publ., 1978

Lü-Shih Ch'un Ch'iu 呂氏春秋 (Spring and Autumn of Mr. Lü). A compilation of various schools of thought made under the direction of Lü Pu-Wei 呂不韋 . (died 235 B.C.)

Lu, Yuan-Ting. 南方地區傳統建築的通風與防熱 (Thermal Insulation and Ventilation in Traditional Houses of Southern China), 中國建築史論文選輯 Collected Essays on the History of Chinese Architecture. Taipei: Ming Wen, 1983, pp 48-55

Lu, Yuan-Ting, and Wei, Yen-Chün, 廣東潮汕民居 (Houses of Chaochou and Shantou), 建築師 (The Architect), No. 13, Peking, 1982

Lu, Yuan-Ting; Ma, Hsiu-Chih; and Cheng, Chi-Shen. 廣東民居 (Houses of Kuangtung), 中國建築史論文選輯 (Collected Essays on the History of Chinese Architecture), Vol. 2. Taipei: Ming Wen, 1983

Mao, Tun. 神話研究 (The Study of Myths). Tientsin: Pai-Hua Wen I Publ. Co., 1981

Mo-Tzu 墨子 . Collection of writings of the Mohist school, which was founded by Mo Ti 墨翟 (479-381 B.C.)

Museum of Panpo in Sian, The. 西安半坡 (Sian, Panpo). Peking: Wen Wu, 1963

Museum of Panpo in Sian, The. 陝西臨潼姜寨遺址第4-11次發掘紀要 (The 4th-11th Documentation of Excavations in Chiangchai Remains of Lingtung in Shensi) in 考古與文物 (Archaeology and Cultural Relics), Vol. 3, 1980

Nan Hai Chu Jen. 堪輿學原理 (The Theory of K'an Yü). Taipei: Chi-Wen, 1981

Needham, Joseph. Science and Civilisation in China. Vol. 2. Cambridge: Cambridge University Press, 1956

Needham, Joseph. Science and Civilisation in China. Vol. 4. Part 3. Cambridge: Cambridge University Press, 1971

Pan, Ku. 前漢書 (History of the Former Han Dynasty). Han Dynasty

Pu, Che-Wei. 雪心賦 (Poetry of Snow Heart)

Rapoport, Amos. House Form and Culture. London: Prentice Hall, 1969

Rapoport, Amos. "Sociocultural Aspects of Man-environment Studies" in The Mutual Interaction. People and Their Built Environment : A Cross-Cultural Perspective. ed. A. Rapoport. The Hague : Mouton, 1976

Rapoport, Amos. "On the Cultural Origins of Settlements", Introduction to Urban Planning. Ed. by Antony Catanese & James Snyder. McGraw Hill Book Co., 1979

Ruey, Yih-Fu. 中國家庭結構之变遷 "Changing Structure of the Chinese Family" in 台大考古人類學刊 (Bulletin of Anthropology, National Taiwan University). Taipei: National Taiwan University

Shao Ping. 略論西安半坡基地發現的割体葬儀 (A Discussion on the Remains of a Special Burial Ceremony Found in Sian, Panpo) in 考古與文物 (Archaeology and Cultural Relics), No. 4. 1980

Shih Ching 詩經 (Book of Odes). Collection of court and folk songs from the various feudal states of China during the early part of the Chou Dynasty.

Shu Ching 書經 (Book of History). The Shoo King translated by James Legge in The Chinese Classics, Vol. III. Reprinted Hong Kong, Hong Kong University Press, 1960

Shyu, Yue-Jiann. 台湾傳統建築架構設計原則之探討 "The Study of Chinese Traditional Construction Design Principles in Taiwan". 建築與城鄉研究學報 Bulletin of Environmental Studies. Taipei:National Taiwan University, Vol. 2, No. 1, 1983

Skinner, Stephen. The Living Earth Manual of Feng Shui. London: Routledge & Kegan Paul, 1982

Soothill, William. The Hall of Light. London: Lutterworth Press, 1951

Ssu, Ma-T'an, and Ssu, Ma-Ch'ien. 史記 (Historical Records)

Studio of Environmental Planning and Design, National Taiwan Univ. 板橋林本源園林研究與修復 Study and Restoration of the Lin Family Gardens in Panchiao. Taipei:National Taiwan University, 1981

Study Group on Cave Dwellings. 洛陽黃土窯洞建築 (Loess Cave Dwellings in Loyang), 中國建築史論文選集 (Collected Essays on the History of Chinese Architecture), Vol. 2. Taipei:Ming Wen, 1983

Sung, Shao-Kuang. 為你解风水 (Explanations of Feng Shui). Taipei: Shih Pao, 1985

Tai Ping Yü Lan 太平御覽 . Vol. 78. Encyclopedia completed in A.D. 977

Tang, Ching-Fan. 先秦哲學 Philosophy of the Early Ch'in Period. Hong Kong: Wen Ch'ang, 1958

Tai, I-Hsüan, 干闌式住宅-中國西南原始住宅 (Pile Dwellings - Primitive Dwellings in Southwestern China), Kuangtung: Ling Nan Univ. 1948

Tan, Chang-Jui. 傳薪集 (Folk Belief and Witchcraft) in 海外學人 Hai Wai Hsüeh Jen, No. 135. 1983

Tang, Chün-I. 中國文化之精神價值 (The Value of the Spirit of Chinese Culture). Taipei:Cheng-Chung, 1953

Tien, Chung-Tan. 干闌式建築之傳統 (Tradition of Pile Dwellings), Architecture, Vol. 96, No. 1175

Ti Li Chih Chih Yuan Chen Ta Chuan 地理直指原真大全 (The Complete Instructions on Ti Li). Reprinted Shanghai: Hung Wen Books

Ti Li Jen Tzu Shü Chih. 地理人子須知 (Common Knowledge of Ti Li). Ming Dynasty. Reprinted Hsinchu: Chu-Lin Publ. 1979

Ti Li Pien Cheng Chih Chieh 地理辨正直解 (The Explanation of Ti Li). Reprinted Shanghai: Hsiao Ching San Fang Publ.

Tsao, Hsüeh-Chin. 紅樓夢 (Dream of the Red Chamber). Classic Chinese novel from the Ching Dynasty. Reprinted Taipei: Shan-Ming, 1976

Tso Chuan 左傳 . A general history of China covering the period around 722-481 B.C, compiled in the 3rd or 4th century B.C.

Tsou, Heng. 夏商周考古學論文集 (Essays on the Archaeology of the Hsia, Shang and Chou Dynasties). Peking: Wen Wu Press, 1980

Ts'ui, Shu-Chia. 青海東部民居-莊窠 (Houses in Eastern Chinghai), 中國建築史論文選輯 (Collected Essays on the History of Chinese Architecture), Vol. 2. Reprinted Taipei: Ming Wen, 1983

Tu, Cheng-Sheng. 篳路藍縷-從村落到國家 (From Village to State) in 中國文化新論 (New Treatise on Chinese Culture). Edited by Liu Tai. Vol. on Origins. Taipei: Lien-Ching, 1982

Tu, Cheng-Sheng. 傳統的家族與家庭 (Traditional Clans and Families) in 中國文化新論 (New Treatise on Chinese Culture), Edited by Liu Tai. Vol. on Society. Taipei: Lien-Ching, 1982

Tuan, Yi-Fu. Space and Place. London: Edward Arnold Ltd., 1977

Tung, Chung-Shu. Ch'un Ch'iu Fan Lu 春秋繁露 (Luxuriant Dew of the Spring and Autumn Annals). Han Dynasty

Unterrieder, Else. Glück Ein Ganzes Mondjahr Lang. Klagenfurt: Universitätsverlag Carinthia, 1984

Wang, Cheng-Hua. 華夏意象 (Chinese Images) in 中國文化新編 (New Treatise on Chinese Culture), Vol. on Arts. Taipei: Lien-Ching, 1982

Wang, Ch'ung (A.D. 27-100). Lun Heng 論衡 (Critical Essays).

Wang, Emily. "New Year Prints" in Free China Review, Vol. 35, No. 3, 1985

Wang, Kuo-Yü. 徽州住宅建築形式初探 (Preliminary Study of the Architectural Style of Houses in Huichou) in 建築師 (The Architect), No. 9. Peking, Dec. 1981

Wang, Shao-Chou. 北平四合院住宅的組成與構造 "The quadrangular courtyards in Beijing, their composition and structure", 科技史文集 (Collection of Scientific History), Vol. 5, pp 92-101

Weber, Max. The Religion of China. Glencoe: The Free Press, 1951

Wen, I-To. 天問疏証 (The Explanation of Tien Wen). Peking: Joint Publ. Co., 1980

Wen-tzu 文子, attributed to a follower of Lao Tzu. Collected in 四部備要 Ssu-pi Pei-yao. Shanghai: Chunghua Book Co.

Wheatley, Paul. The Pivot of the Four Quarters. Edinburgh: Edinburgh University Press, 1971

Willetts, William. Chinese Art, Vol. 2. London: Penguin, 1956

Wolf, A.P. "Gods, Ghosts and Ancestors". In Religion and Ritual in Chinese Society. Edited by A.P. Wolf. Stanford: Stanford University Press, 1974

Wood, Frances. Domestic Architecture in the Peking Area, 1860-1930. Ph.D. Thesis. University of London, School of Oriental and African Studies, 1983

Work Group on Cultural Relics, Bureau of Culture, Honan Province. 鄭州南関159號漢墓的發掘 (The Discovery of Han Tomb No. 159 in Nankuan Chengchou) in 文物 Wen Wu, Nos. 8 &.9, 1960

Wright, Arthur. "Symbolism and Function - Reflection on Chang An and Other Great Cities", Journal of Asian Studies. August 1965

Wright, Arthur. "The Cosmology of the Chinese City" in The City in Late Imperial China. Edited by William Skinner. California: Stanford University Press, 1977

Wu, Cheng-Sheng. 中国建築装飾藝術 (The Art of Chinese Architectural Decorations). Taipei: Wen-Shih Che, 1979

Wu, Nelson. Chinese and Indian Architecture. London: Prentice - Hall Int., 1963

Yang Chai Ai Chung 陽宅愛衆 (Yang Chai and People). Shanghai: Chiang Tung Books, 1911

Yang Chai Shih Shu 陽宅十書 (Ten Books of Yang Chai). Reprinted in Taipei: Ta Fang Publishing Co., 1978

Yang, Chia-Wen, and Sun Huai-Chin. 陝西関中地區農村住宅的傳統形式 (Traditional Farmhouse Form in Kuanchung, Shensi Province), 中国建築史論文選輯 (Collected Essays on the History of Chinese Architecture), Vol. 2. Taipei: Ming Wen, 1983

Yang, Hung-Hsün. 中国早期建築之發展 "Development of Architecture in Early China", 建築歷史與理論 Corpus of Architectural History and Theory, Vol. 1. Kiangsu:Jen-Ming, 1980

Yang, Hung-Hsün. 從盤龍城商代宮殿遺址談中国宮廷建築發展的幾個問題 "Some Questions Concerning the Development of Chinese Imperial Architecture as seen from the Palace Site at the Ancient City of P'an Lung in Huangp'i County, Hupei Province". 文物 Wen Wu. No. 2, 1976

Yang, Hung-Hsün. 西周岐邑建築遺址初步考察 (Preliminary Survey of Architectural Remains from the West Chou) in 文物 Wen Wu, 1981

Yen, Tun-Chieh. 関於西漢初期的式盤和占盤 (On the Diviner's Board from Early West Han) in Kao Ku. No. 5, 1978

Yen, Wen-Ming & Kung, Chi-Ming. 從姜寨早期村落布局探討其居民的社會組織結構 (Study of Social Structure based on Early Village Settlements in Chiangchai) in 考古與文物 (Archaeology and Cultural Relics), 1981

Ying Shao. Feng Su-Tung 風俗通 (An Understanding of Customs), Ching Dynasty